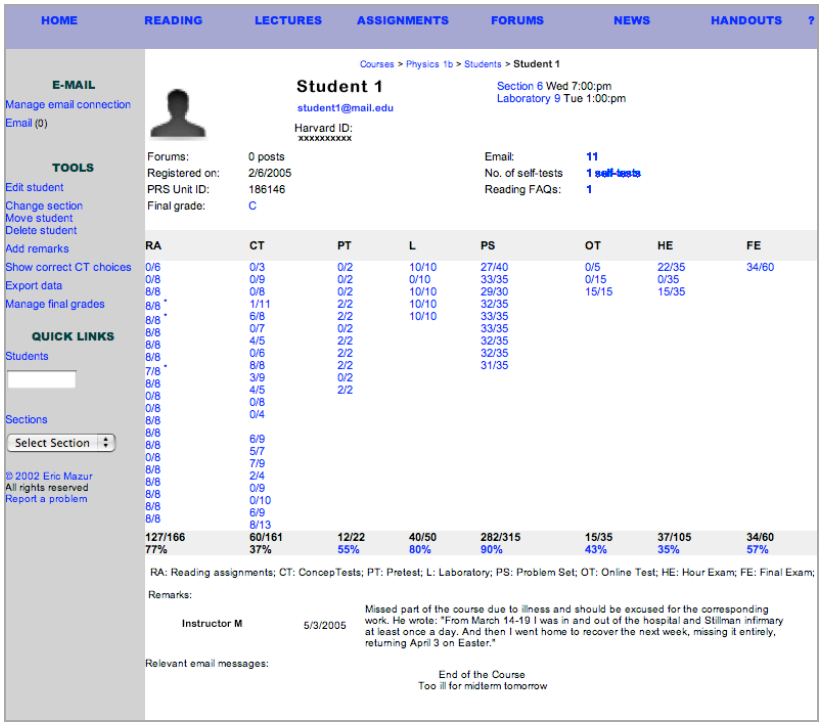
The Interactive Learning Toolkit (ILT)
Version β



User Manual

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Introduction

Welcome to the Interactive Learning Toolkit (ILT) User Manual. We hope that this manual will help you to use the different tools of the ILT as efficient as possible. In case of additional questions, please do not hesitate to contact us.

This is the beta-version of the ILT manual. If you have suggestions to improve its usefulness to you, let us know.

Purpose of the Interactive Learning Toolkit

The Interactive Learning Toolkit helps you implement innovative teaching ideas, such as Peer Instruction and Just-In-Time-Teaching, and to monitor your students' learning. Our goal is to help you focus on teaching by streamlining the organizational work that accompanies the teaching of a course. Select materials for class use from a large class-tested database and organize (and possibly share) your own materials. Administer your courses, design course Web pages, and interact with your students online.

Structure of the manual

The manual has the purpose to guide you through the different functionalities of the toolkit.

- Each chapter corresponds to a main module of the toolkit.
- Each chapter starts with the purpose of the module. It continues with a step-by-step description of its functionality.
- The Face Book is described in a separate chapter.
- The last chapter describes the course website created by the ILT as it is seen by the students. This chapter can be used as a Student Manual
- The manual use examples from an actual physics course that was administrated through the ILT toolkit at Harvard College on spring 2005.

Login page

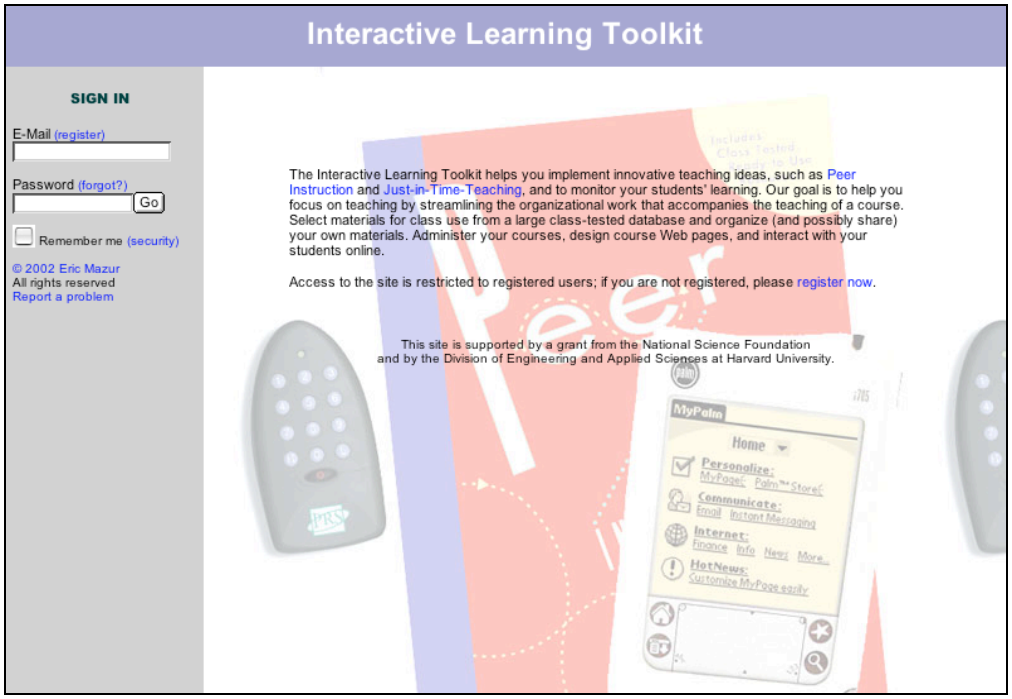


Figure: Interactive Learning Toolkit Home Page

Once you have successfully installed the ILT, or access the Toolkit on the Harvard website, you will be directed to this portal website. Before you setup a course, you have to register with the ILT.

It is advisable that both the instructor and other members of the teaching staff to register independently. The instructor can add the rest of the teaching staff later in his course to provide them with restricted access to their course.

Registration

Click on "Register" to be directed to the registration site. All information you provide is strictly confidential. This information can be changed (see the "Completing Profile" section in the next chapter for more details).

Each account is designed to administrate several different courses and/or different semesters of the same course. Multiple registration of the same instructor is therefore not necessary. It is not possible to register two times with the same email and each email can only be associated with one account.

Once you submit your registration, you will receive an email with a password. This e-mail will be delivered to the address you have registered. Go back to the ILT home page

and sign in with your email address and the password provided. You can change the password later in your “profile” page (see the next chapter). For your convenience, you can choose to save your login information on any computer. If you check "Remember me", your password will be saved until you sign out, even if you disconnect from the Internet, close your browser, or turn off your computer. Many browsers remember the username and password as a default. **Please advice your teaching staff not to use the ILT on any publicly accessible computer!**

Courses website

Once you have logged on, you will be redirected to the Courses website. From this page, you have access to all the courses that you have created and/or the courses you are part of as teaching staff. At the same time you can modify your profile, browse the public concept test database and create, modify or clone a course.

This chapter of the manual will describe how to create, delete and clone a course, and how to complete and/or edit your profile information.

The following figure shows and example, where the user owns courses both as an instructor as well as a member of the teaching staff.

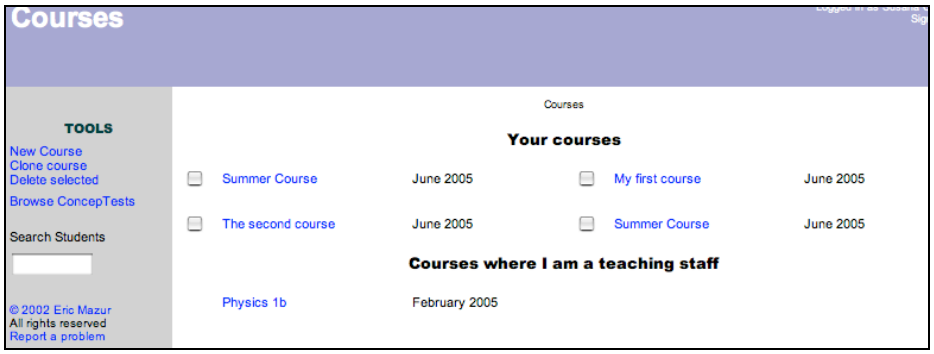


Figure: Example of a Courses website.

Courses website after first login

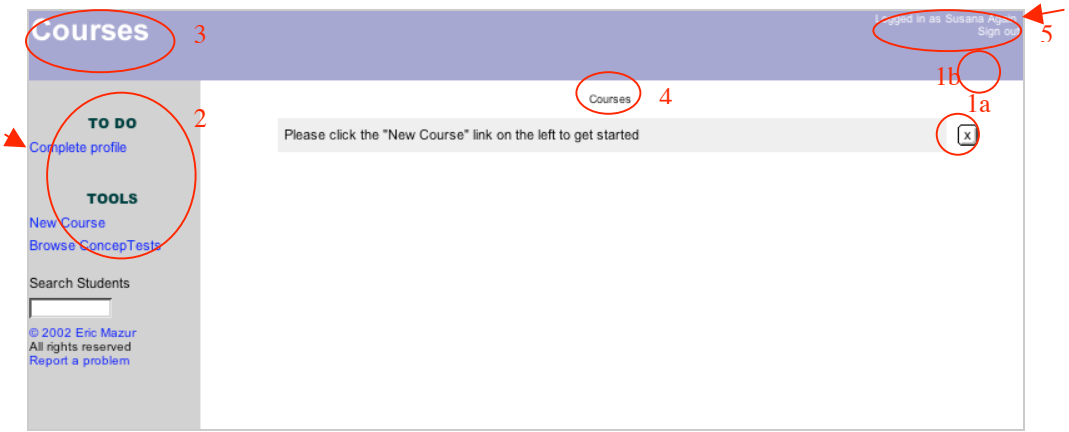


Figure: The Courses website after the first login. The red arrows point indicates the link to modify your profile and account information.
The red circles indicate basic elements of the toolkit described in the text.

The first time you login to your account you have two main things to do: completing your profile and creating a new course.

Please complete your profile information by clicking on the corresponding link in the **TO DO** list on the side panel. You can also edit your profile later by clicking on your name in the upper right corner of the window (see red arrows in the figure, circles #2 and #5).

Basic elements of the ILT toolkit

1- Help text:

Each page in the toolkit has short help text in the top. You can hide the text by clicking in the box with an "x" on it, as circled in the image (circle #1a). To have the text appear again, click in the "?" mark that will appear in the bottom right of the top blue margin (empty circle #1b). In the current beta version of the ILT, help texts may be incomplete or not available. We anticipate that help text on the basis of this manual will be available in any future version.

2- Gray margin menus:

At the side panel (gray margin on the left side) you will find several menus throughout the toolkit. This list of links changes dynamically depending on your status, your setup and your location within the ILT.

To Do: The "To Do" menu offers shortcuts to different recommended tasks you have not yet done. It helps you to recognize which tasks have to be completed to activate certain functionality.

Tools: The "Tools" menu will list options to work with the corresponding section you are in. After adding your first course, you will have the option to clone, delete or add new courses under this menu. You also have the option to navigate through the concept tests database.

Coming Up (not in the figure): This menu doesn't yet appear in your account. It will list the lectures and assignments that are coming up in your course. It offers a quick link to the items that need to be ready for your class. This function facilitates the day-by-day design of your course. (for further details see the "Lectures Module" chapter).

3- Account Home link

You can access the Courses website from anywhere in the ILT by clicking on the title in the upper left corner of your site (circle #3). Once you are inside a given course, this title will be the name of your course.

4- Location

At the top of each page you can find the path of your current location within the toolkit. (Circle #4). This is also a way to get quick access to the different areas of the toolkit.

5- User Name and Sign out link

Circle #5 shows you the area that displays the user name of the account and a link to sign out. The user name is also a link to read and edit the "profile" information.

Completing Profile

The Profile page displays your user profile, including your name, address, URL, institution, teaching experience, and the personal settings for your account. You can update all these information at any time. Use the "Change password" link to change the password assigned to you to a password you can remember. It is advisable for security reasons to use a complex password containing capital and small letters as well as numbers and other alphanumerical symbols

Figure: Profile Page

The personal settings of your account include the maximum number of concept tests you want the lectures to display per page, if you want them to be expanded or collapsed (see …), and if you want every page to show the help text by default.

Although different time zones are displayed, they are not yet implemented. The default time zone depends on the server time on which the ILT is running. If you want the ILT to run on your time zone, you have to install a local copy on your server. Otherwise, keep in mind the time zone conversion for the diverse features.

Tools on the Courses website

After completing your profile, proceed to create a new course. Use the tools at the side panel.

New Course

To create a course, click on the "new course" tool and enter the name in the pop up window (see figure). Once you press "Add", you will be directed to the "Course Home

Page" (see next chapter), the page where you will administrate all information and content of the course.

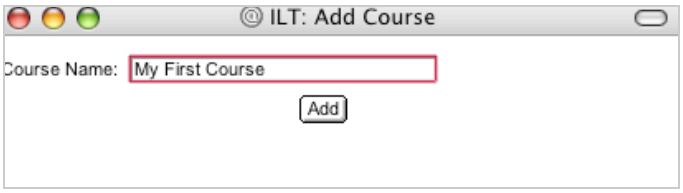


Figure: "Add course" pop up window.
Access it by clicking in "Create Course" tool.

You can go back to the Courses website by clicking in the course name, at the top left corner.

Delete course

You can delete a course from your list by selecting it and clicking the tool "delete course".

Clone Course

This is a useful tool for courses that are repeated from one semester to another. Just check the respective course and click on the tool "clone course". Choose the items you are interested to clone from the old version. You will need to reset the course dates using the "Edit schedule" feature.

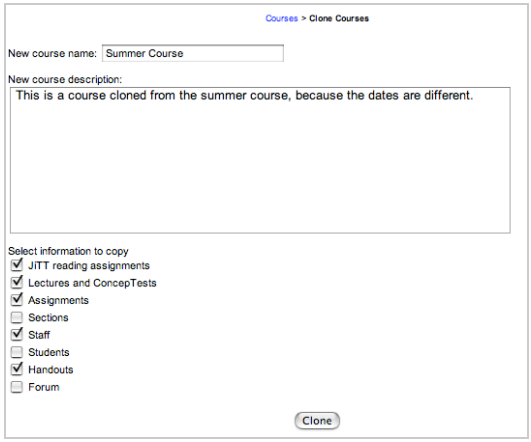


Figure: Clone Course page

Course Home Page

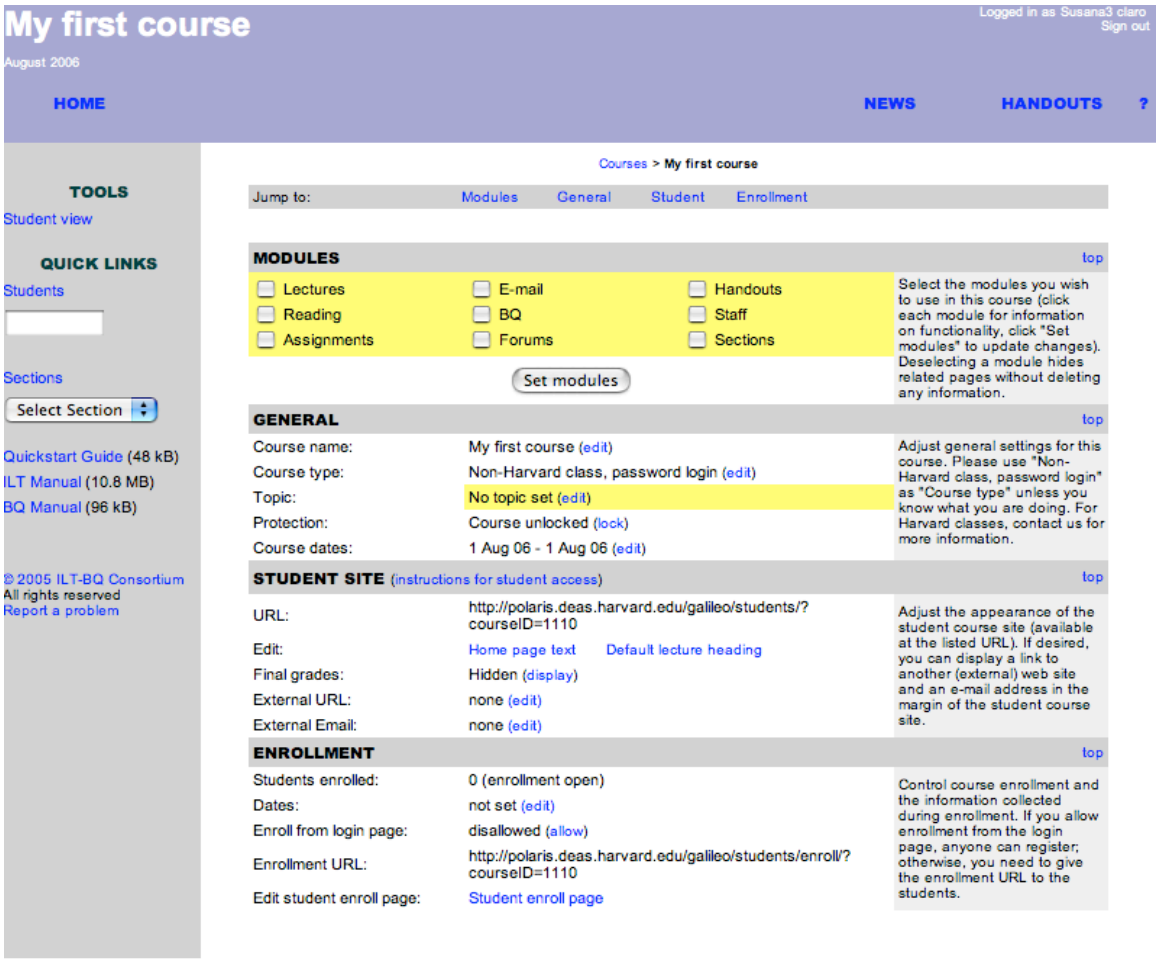


Figure: "First Course" Course Home page.
The main settings of the course are divided in four sections.

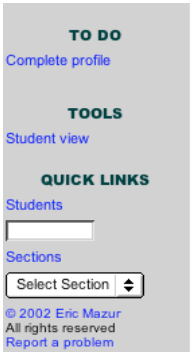
The course home page contains a dashboard where you can determine the main settings of the course.

The main settings of the course are displayed in four categories: "modules", "general", "student site" and "enrollment". This chapter describes the general settings, student site, and enrollment information, and adds a general description of the modules and the links available on the side panel. Each of the modules will be explained in further detail in the following chapters.

Most settings come with default values. You should set them to your required values. The sections that are highlighted in yellow must be completed before moving on. To edit the settings of a module click in the correspondent link that will appear after you add it to the course.

To come back to the course home page from another location, click on “Home”, written under the course title in the top margin menu. To go back to your account home page, click on the title of the course (“My first course”).

Menus on the side panel



To Do menu:

While you add modules to the course, different tasks will be listed in the To Do menu. It will offer you a quick link to edit your user profile.

Tools menu:

Different tools will be available in this menu throughout the use of the system. They vary depending on the module you are working at. The tool that remains throughout the entire site is the Students View Tool

Students View: This tool allows you to view the appearance of the corresponding student website.

Quick Links:

The quick links on the side panel give you quick access to students and sections in your course (once you've added them). You can search a particular student by typing its ID or name in the text field and you can choose a section from the pull-down menu (see the Face Book and Sections chapter for students and sections respectively).

Course information

1. **Modules:**

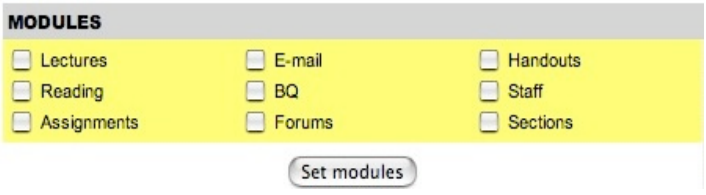


Figure: “Modules” information. The image shows the nine modules you can add to your course.

Each module introduces extra functionality to your course:

Lectures: Manages the schedule and content of lectures, including the creation and inclusion of Concept Tests.

Reading: Manages the schedule, content and grading of JITT Reading Assignments.

Assignments: Manages the administration and grading of all other type of assignments, including on-line tests, in-class exams, pre-tests, problem sets, etc.

E-Mail: Manages the connection and administration of an email account for the course

BQ: Manages the BQ settings available throught the ILT.Administrates the distribution and status of the in-class response transmitters .

Forums: Manages forums for the course.

Handouts: Organizes handouts and supply them for students.

Staff: Allows restricted access to the course settings for members of the teaching staff and manages their contact information.

Sections: Manages the administration of sections and assigns students and staff to it.

Check the boxes of the modules you wish to set for your course. Un-checking the box removes the module from the course, but it will not delete the data associated with it. It will only hide its access.

After adding the desired modules to the course, you are required to edit their settings by clicking in the respective module's link that appears on the top of the page. The system will also offer you shortcuts to do so in the "To Do" Menu (see figure)

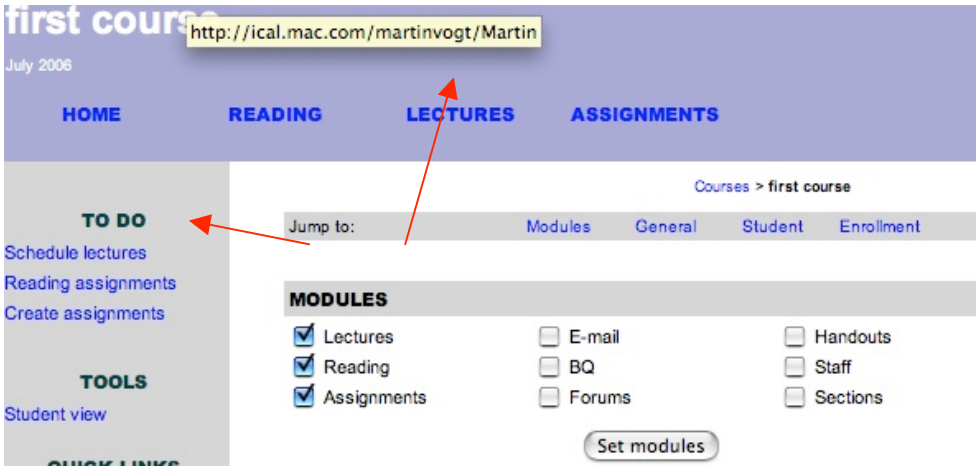
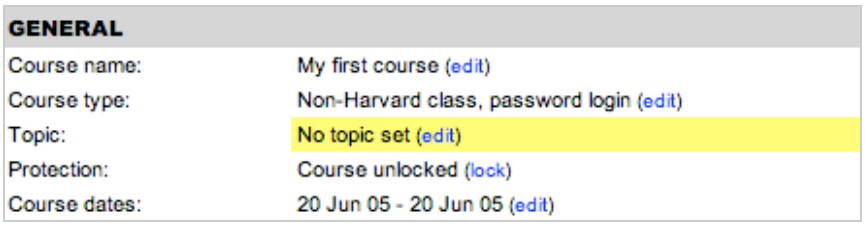


Figure: Partial image of the Course Home Page, after adding "Lectures", "Reading" and "Assignment" modules.

For a detailed description of each module, see the corresponding chapter in this manual.

2. General:



GENERAL	
Course name:	My first course (edit)
Course type:	Non-Harvard class, password login (edit)
Topic:	No topic set (edit)
Protection:	Course unlocked (lock)
Course dates:	20 Jun 05 - 20 Jun 05 (edit)

Figure: General Settings section of the Course Home Page

These are some general settings about the course. Click on the respective "edit" link to change them. For "Course type" please use "Non-Harvard class, password login" unless you are teaching a class at Harvard. In this case please contact us for more information.

You can lock/unlock the course content to prevent modifications, you can display or hide students' final grades and you can set the course initial and ending dates. The latter will be available only if you have already created the lecture schedule for the course, in which case you will be directed to the "edit lecture schedule" page.

Please set a topic for your course. This can be modified at any time and you can choose more than one topic. If you want browse the CT database from a lecture page (see…), you need to set a topic, otherwise the search will return no matches, As for today the topics included are:

Physics
- Thermodynamics
- Introductory Mechanics
- Introductory Electromagnetism
- Further Introductory Physics

Biology
- Population Dynamics
- Ecology
- Respiration
- General Biology
- Advanced Genetics
- Introduction to Biological Sciences

Laboratory -- semester 1
- Introduction to Biological Sciences

Laboratory -- semester 2

Chemistry
- Water
- General Chemistry

Mathematics
- three-dimensional coordinate system
- Multivariable Calculus
- Vector Calculus
- Single Variable Calculus

Astronomy
- Introductory Astronomy

Biomedical Engineering
- Systems Physiology

Statistics
- Introductory Statistics

Engineering Science
- Introduction to Computing in Engineering
- Technology Marketing

Economics
- Introduction to Microeconomics
- Introduction to Macroeconomics

Geology:
- Introductory Geology

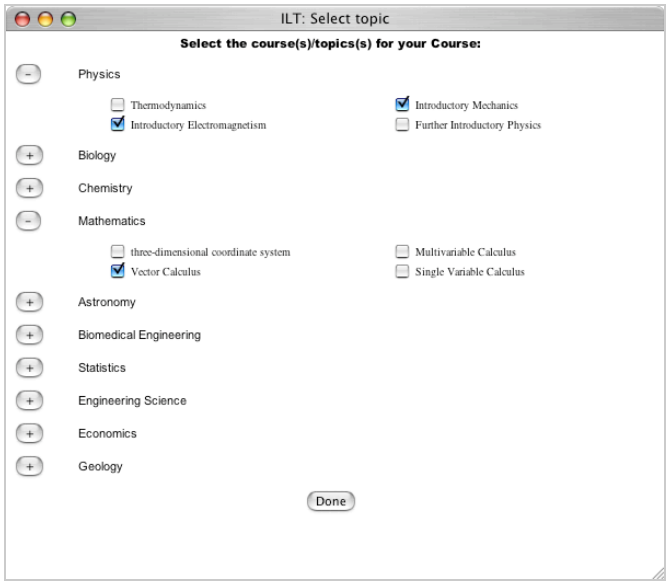


Figure: "Select a Topic" window.

3. Student Site:

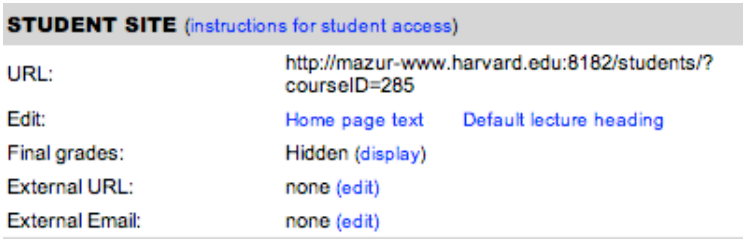


Figure: Student Site settings on Course Home Page.

The URL listed in this section is the URL that hosts the students' course home page. You can access it by clicking on the "students' view" link in the "Tools" menu on the left.

You can adjust the appearance of the students' course site with the "Home page text" field, which will add text to the course home page (see student view section). This text may be html code, giving you the choice to add links, titles, tables, etc., to the home page (see the Physics 1b example at the end of this chapter).

The "default lecture headings" field is a quick link that lets you edit the information for specific lecture headings. More explanation about this can be found in the "Lectures Module" chapter of the manual.

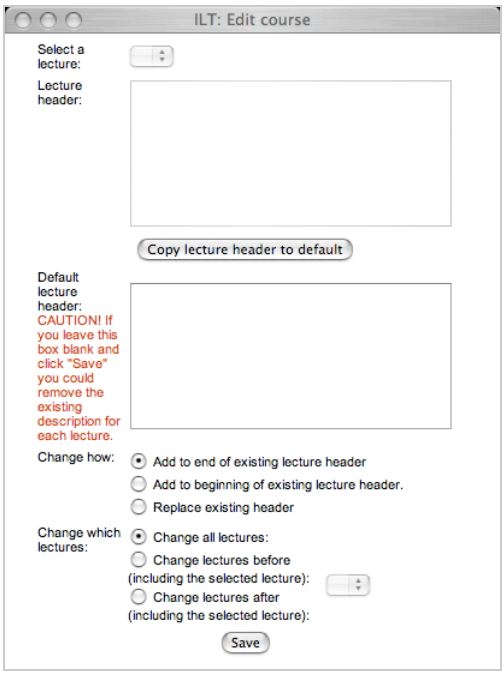


Figure: "Default Lecture Heading" window.
See further detail in the chapter "Lecture Module"

Adding information in the "External URL" and "External Email" fields will display a link to the respective URL and Email in the margin of the student course site (see "student view" section in this chapter).

You can also choose to hide or display the final grades from the students in the student's course page.

4. Enrollment:

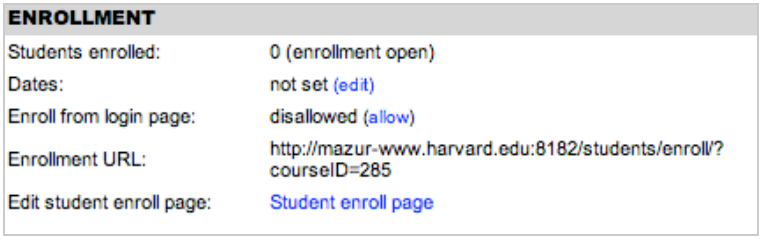


Figure: Enrollment settings

This tool allows you to manage the enrollment of your students. Students will be able to register via the course website created by the ILT. You can also register students manually.

To allow access to the "enrollment URL" from the course website, change the "enroll from login page" setting to "allow" (see image below). Otherwise, provide the URL directly to your students. During the enrollment period, students will have access to the

enrollment page through a small link in the course website (see red circle in the image below). In this case, anyone who has access to the course webpage will be able to enroll.

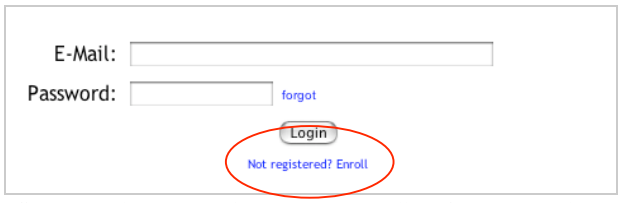


Figure: Student View. Red circle shows the link for the enrollment page (It is allowed to enroll from login page in this case).

You can control the information collected during enrollment by editing the forms that the students have to fill in to register. Some entries are set by default because the system requires them, but you can add your own.

Students view

This is the default initial students view:

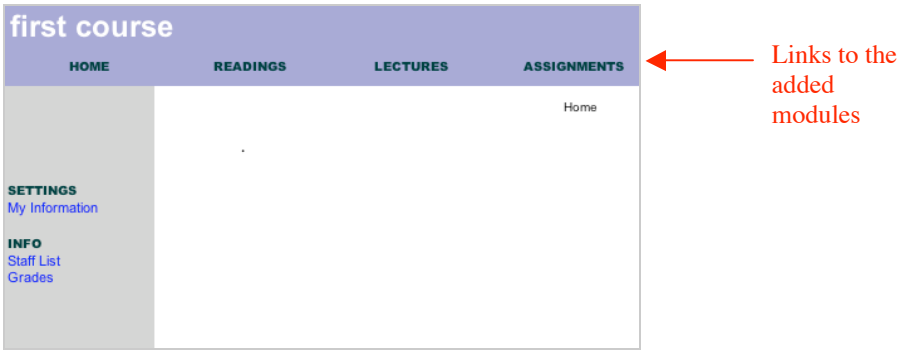


Figure: Default Students Course site

By adding "home page text", external URL and external E-mail, this is how the student's page will look (also see Physics 1b course as an example at the end of this chapter)

Physics 1b Example

The following image is an example the Student View of the course Physics 1b from Harvard College. It shows a welcoming message and uses all modules.

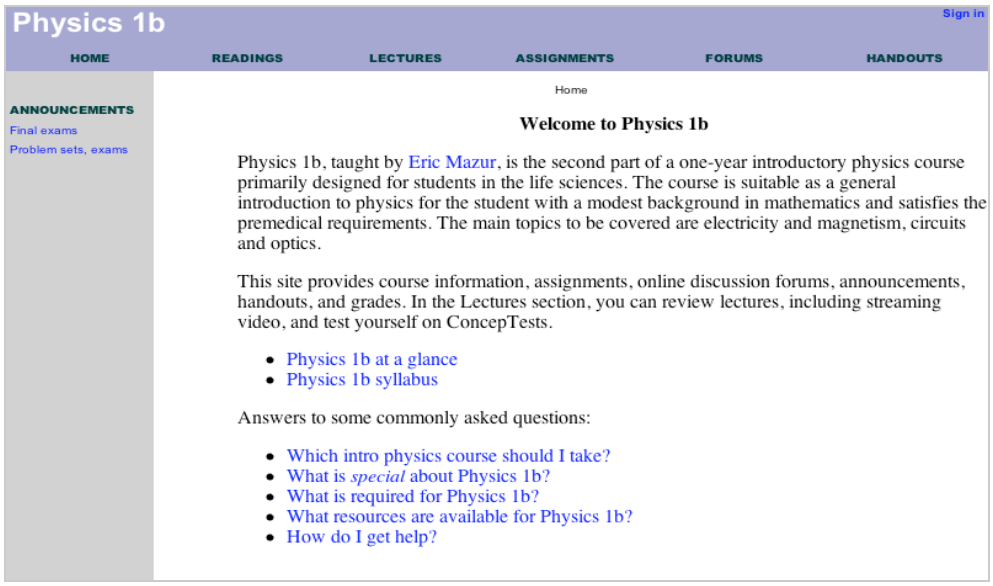


Figure: Physics 1b course home page.
The blue text in the "home page text" represents links to external files set using HTML code.

Figure: The Course home page for the Physics 1b course.

Lectures Module

The Lectures Module is designed for the administration of the lecture schedule and content. In courses based on Peer Instruction, lectures are interspersed with conceptual questions, called ConcepTests (CT), designed to expose common difficulties in understanding the material. The choice of ConcepTests should depend on the most common conceptual difficulties the instructor has identified from the reading assignments. The ILT is designed to allow easy preparation and modification of the CT list until the day of class.

The following chapter describes first the management of lectures general information (such as schedule). The third chapter will describe how to create the content of each lecture.

Scheduling Lectures

Once you add the module "Lectures" in your course, a link will appear in the top of the page. At the same time, the To Do menu will contain a shortcut for "Schedule Lectures". This link directs you to the following form.

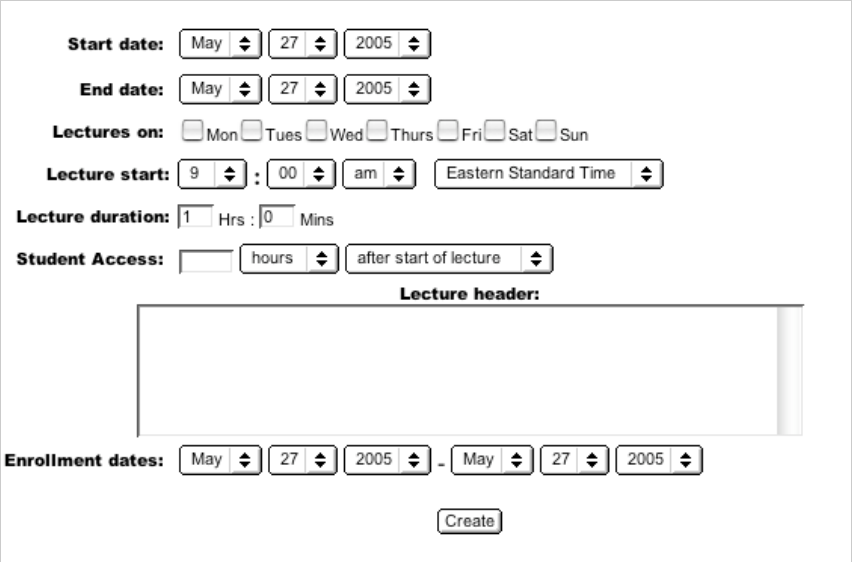


Figure: The "Create schedule" form for lectures.
Please note: Unless you are running ILT in a local server, the time zone will be EST.

Complete the information needed: Start and End dates refer to the dates of the first and last lectures. Select the days of your course. Select the time and duration of your lectures (please note that currently the time you specify will be checked against the system time of the server on which the ILT is running. The time zone feature is not yet implemented). If a specific lecture is held at a different time, you can edit the lecture date later. The form

allows you to determine when the students will have access to the lecture page (see the section “Student View” below.

After you submit the information about your schedule, the system will automatically create the respective lectures for your course. You will be directed to a page that will list the lectures with their default names. You can modify the titles of the lecture by clicking in the text field and typing the title you want for it. There is an icon that represents the kind of link that each lecture has. By default, the lectures are linked to a list of concept test (see Chapter 3)

You can use this page to add, delete, and edit the titles of your lectures.

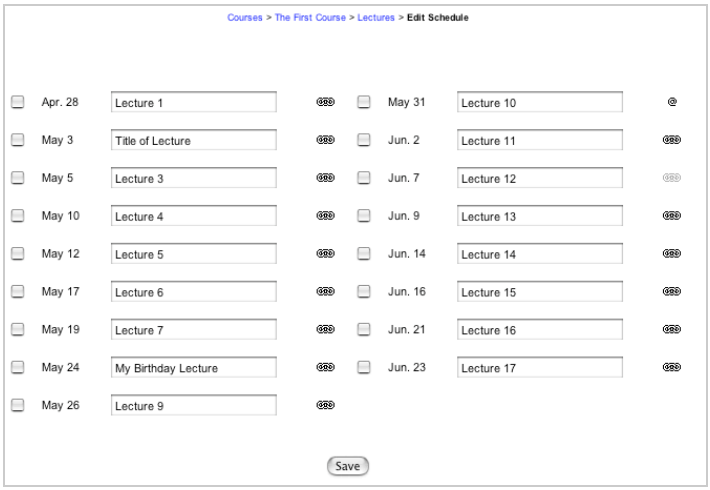


Figure: “Edit Titles” page. The first time that you schedule the lectures, you will be directed to this page. The link icons represent the type of link that each lecture is connected to (concept test list, external link or no link). You can add and delete lectures on this page (by using the tools on the side panel). In the example above, Lecture 10 is linked to an external link (see the icon at its right) and the Lecture 12 has no link. The default link is set to concept tests.

By clicking in the “link” icon you can edit the type of link of the lecture by choosing to link it to an external URL or to give no link to it. Select the corresponding button in the pop up window that appears and click “update”.

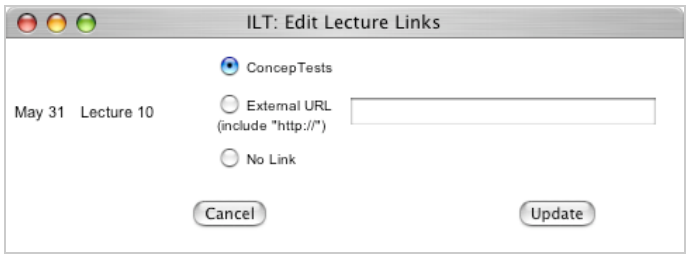
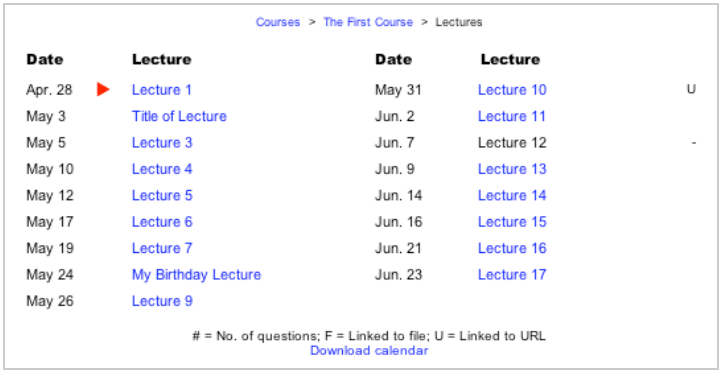


Figure: Edit Lecture Links Window. Choose the link that will direct a specific lecture.

Click on “save” when you are done. You will be directed to the following page (see next figure). This will be the future home page of the “Lectures” module.

Lectures Module page



Figures: "Lectures" page. This is the list of lectures of your course. The red arrow points to the coming lecture. The "U" at the right of the lecture indicates that the lecture is linked to an external URL.

From the "Lectures" page you have three main features that will allow you to do all the modifications to your course schedule, individual lectures, titles, lecture content, etc.

Edit Titles Tool:
Click on the "Edit Titles" tool to add new lectures, delete lectures and change links of and titles of the lectures.

Edit Schedule Tool:
Click on "Edit Schedule" to modify dates and times of lectures, to rearrange their order, or to reschedule the whole course (see "Edit Schedule" section)

Lecture title:
Click on any lecture title to get access to its content and other specific information. If the link is set up to "Concept test" then you will be directed to the "lecture content" page, where you can set up the concept tests that you will use in this lecture (see next chapter).

Add new Lecture

From the "Edit Title" and the "Edit Schedule" tools it is possible to add new lectures by clicking on the "Add Lecture" tool. Adding a lecture from the "Edit titles" page is more convenient if you do not want to reschedule the rest of the lectures.

You will be directed to the following page:

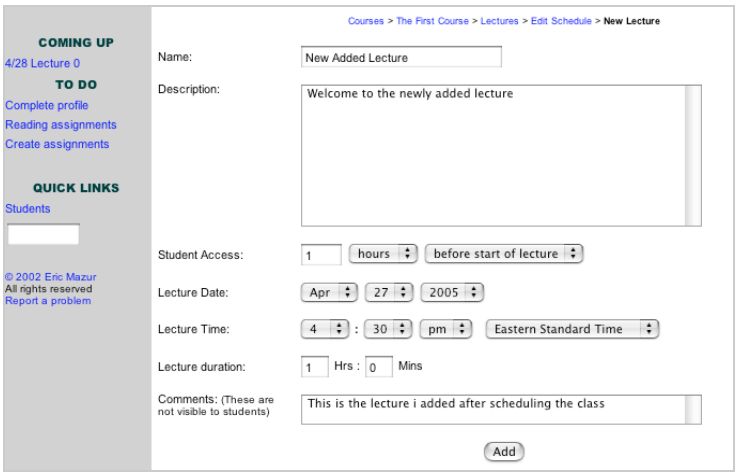


Figure: adding a new lecture page.
Remember to submit Eastern Standard Time unless you are running the ILT on a local server.

Complete the information by giving a name (the title of the lecture), adding a description (in case you want to change the header for that specific lecture), determining the student access (if it is different from the initial setup before), lecture date, time and duration. You can also add comments for your personal records. Click the Add-button. You will be directed to the content page of the lecture. In this page you can add concept test or other content (see next chapter). You can return to the Lectures page by clicking on the respective link in the top blue margin.

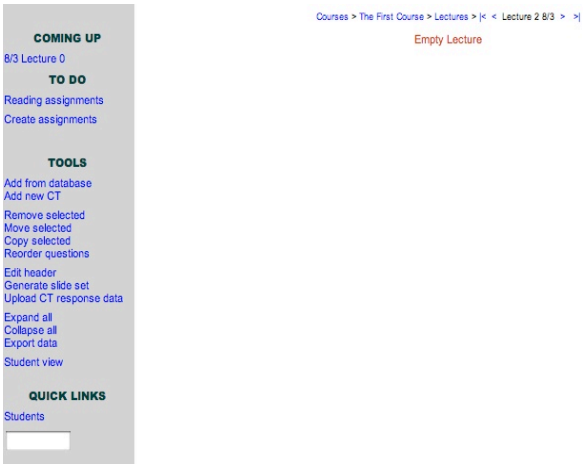


Figure: lectures content page for the lecture “New Added Lecture”

The Lectures page will look like this now:

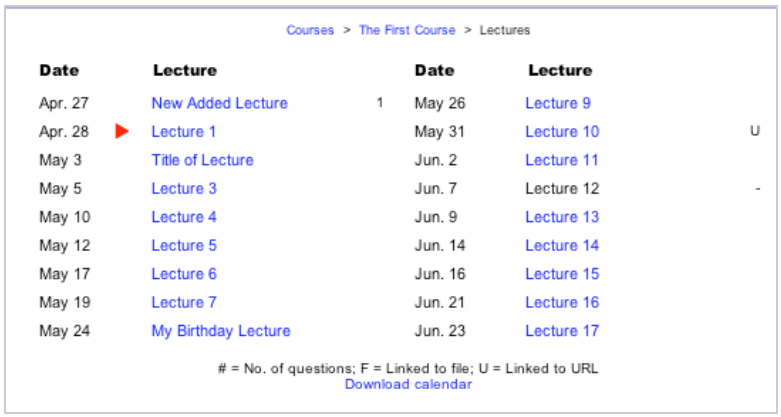


Figure: "Lectures" page shows the list of lectures scheduled for the course.
Each Lecture represents a link to its content. The content can be the list of concept test,
an external link (see Lecture 10) or can be no link at all (see Lecture 12).
The red arrow points to the next lecture coming up.

Student View:

The students view of the lectures page depends on the date they access it and the time you have allow them to access to each lecture. If they do not have access to the lectures yet, then they will appear as the title without a link.

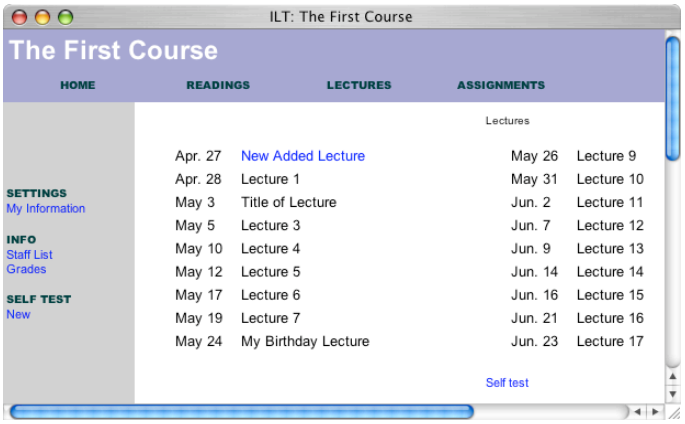


Figure: Students View. This is the "Lectures" page in students view.

After the access time and depending on your choice, the link will either point to an external link or a page prepared by the ILT. A prepared page contains of a text you provided in the lecture header and a list of CTs and answers associated with the lecture (see Chapter 3). You can add links and images in the lecture header text using HTML code.

From the time the lecture starts until the access time of the lecture page the lecture link on the student page points to the BQ session in progress if you have chosen to run the ILT and BQ programs on the same server (see BQ settings on the course homepage). At this site, the student can view the questions posed in the lecture in real time and respond.

Edit Schedule Tool

From the “Lectures” page you can select the tool “Edit Schedule”. It will direct you to the page that will allow you to reorganize the content of the lectures, swapping and reassigning dates to them. If you are looking to erase lectures, or add new lectures, do not use this page. Use this page if you want to add/remove dates for already created lectures. [this may be not clear enough]

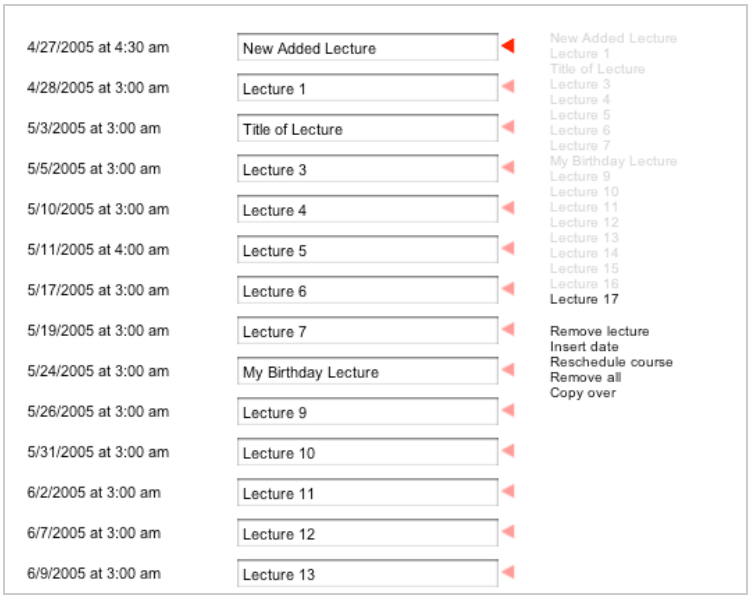


Figure: “Edit Schedule” Page. The “New Added Lecture” is selected (note the red arrow is highlighted), The “Lecture 17” has been removed but it is maintained in the right list of lectures of the course. While the lectures titles in the right list appear very light gray, the lecture 17 is darker because it has not been assigned to any date yet.

This page is designed to modify the schedules of lectures, as a “reorganizing the curriculum” page. It is really useful. Here you can reorganize titles and lectures content. If you just want to add new lectures or delete a lecture, it is better to use the “edit titles” tool (see previous section) unless you are familiar to this page. This page offers the option to Re-schedule the whole course and remove lectures without loosing their content. All lectures that you remove remain in a list in the right side, so you can insert them later in a different date. The ILT highlights the lectures in the list that you haven’t positioned in your schedule.

How to use it: select the lecture you want to modify by clicking in the correspondent red arrow. REMEMBER: no modification will be effective if you do not click “SAVE” before leaving the page.

Remove Lecture:
Click on this option if you want to remove a date. It will erase the title of that date’s lecture, although the date will not disappear from the list. Once you press save that date

will no longer appear in your schedule. Do not get confused, if you select a lecture and click on "remove lecture" it will not disappear from the list, but it will be remove from the memory of the course. However, the content that was assigned to that lecture before will remain in the right list.

Insert Date:

Click on this option if you want to insert a lecture date between the date you have selected (with the red arrow) and the previous lecture's date. A pop up window will appear for this regard (see image). Complete the data for the date and time and click on save (submit EST unless you are running the ILT in a local server). A new lecture field will appear. Fill it with a title or a previous lecture title of the right menu.

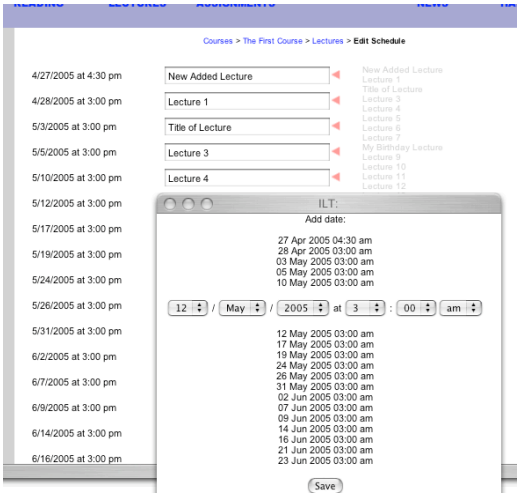


Figure: Inserting a lecture date from the "edit schedule" page. This time the lecture selected was in May 12, then, the dates offered to insert are between may10 (the previous lecture) and may 12.
(submit eastern standard time unless you are running the ILT in a local server)

Reschedule course:

This link will direct you to a similar page than the one you first accessed to schedule your course. You can redefine start and ending dates, course days, student's access time, and – this was not available before- the times for the reading assignments of the course (see image).

Note: The system runs on Eastern Standard Time unless the ILT runs on a local server.

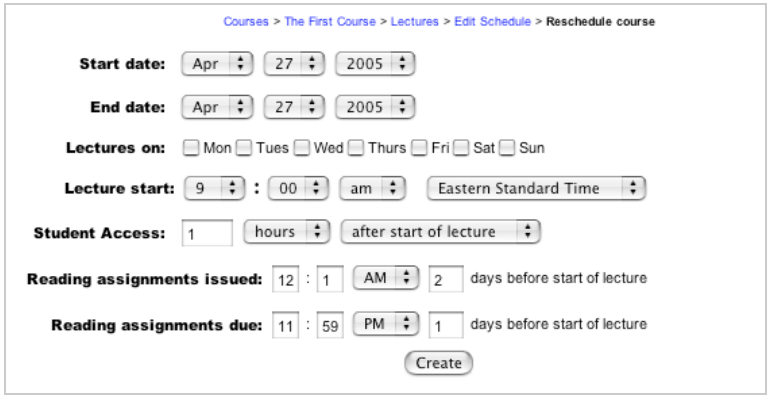


Figure: Rescheduling the lectures page. It offers the same options than the first time you had to schedule the lectures but it adds information about the reading assignments. You cannot edit enrollment dates.

Remove all:
If you remove all lectures then the course would never be usable again.

Copy Over:
To be added.

Click on a lecture title:
To replace the lecture you have selected by another lecture, click on the desired lecture on the list at the right of the page. The lecture will be replaced and the selected lecture will turn empty. This is very useful to swap lectures and reorder the curriculum without undoing all the work. It is also useful if you have to cancel one lecture and reschedule for an extra date, all the previous work can be just "moved" to the new lecture date.

In the Tool Menu at the left margin you can find the tool "Add lecture" which is the traditional way to add a new lecture at any date and time (see tools on the "edit title" section). You can add lectures from either "edit titles" or "edit schedule" pages, using the "add lecture" tool.

To change the time of a specific lecture later you will need to click on its name and use the "edit header" tool on the left.

Adding Content to a Lecture

The content of lectures for Peer Instruction is a list of ConcepTests (CT). Therefore, the ILT facilitates browsing the CT database as well as the creation of ConcepTests and their integration into the lecture.

Concept Tests are multiple-choice conceptual questions. A good concept test should focus on a single concept, not be solvable by relying on equations, have adequate multiple-choice answers, be unambiguously worded and neither be too easy nor too difficult. For more information, please read Eric Mazur's "Peer Instruction: A User's Manual".

You can add other type of content as header of the lecture (such as links, videos, specific announcements, etc). The example below illustrates how the header was used in the Spring 2005 Physics 1b course. The header was created in html code. Below the header comes the actual list of ConcepTests.

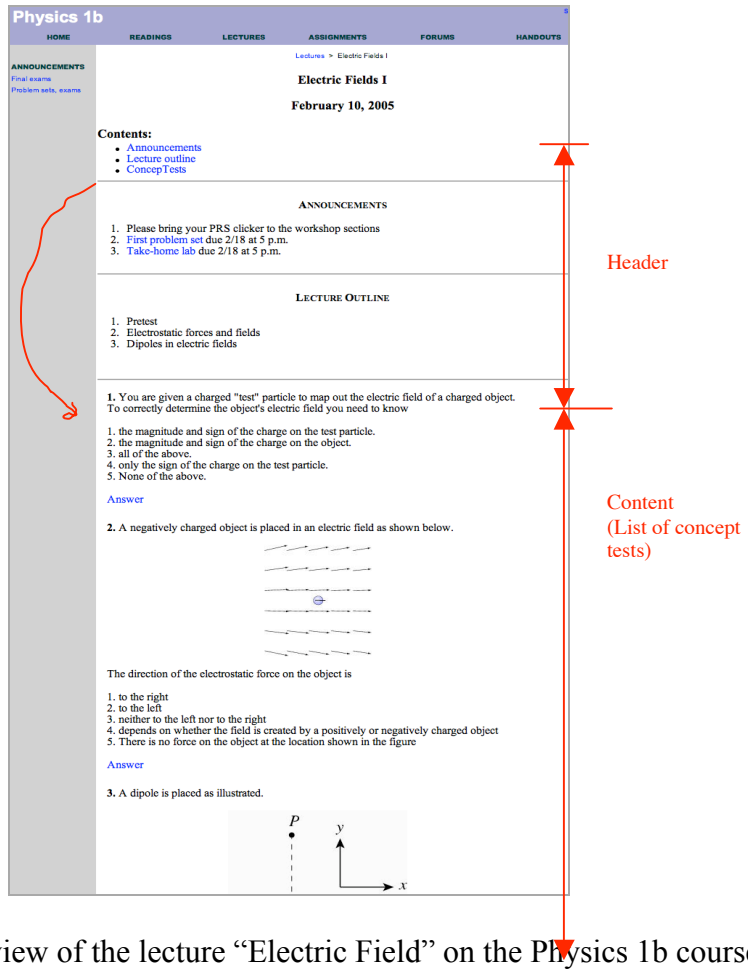


Figure: Student's view of the lecture "Electric Field" on the Physics 1b course site. The image shows the header and body of the lecture

Once a lecture has concept tests assigned to it, students will have the option to perform self- tests on these concept tests. A link will appear on the course webpage where they can choose a lecture to be tested on. The test will run the list of concept tests assigned to that lecture and store the information of their performance on them. For more information read the Student Manual.

Lecture Content page

Once you are in the lecture module, click on the lecture title to access the Lecture Content page. The first time you enter to the page it will be empty. You can add a concept test (CT) by selecting an existing one from the database available or by creating your own new one.

The number next to the "Lecture" link in the "Coming Up" menu at the side panel shows the amount of CTs you have prepared for the upcoming lecture (red circle in figure below).

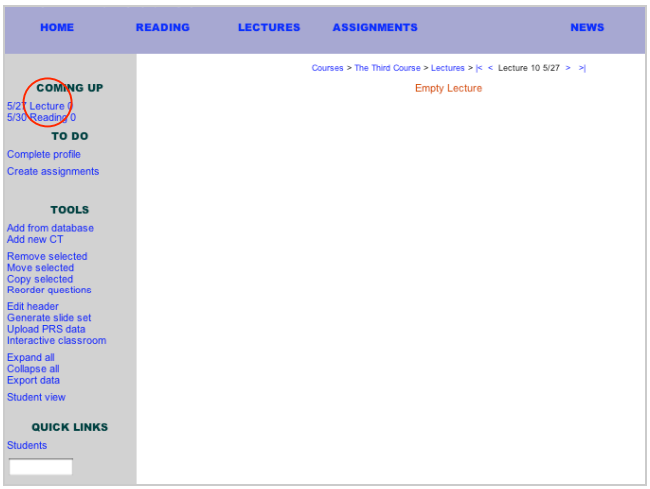


Figure: The content page for a particular lecture.

The date and title of the lecture that you are working on appears at the top of the page. You can go to the next or the previous lecture by clicking in the corresponding arrows.

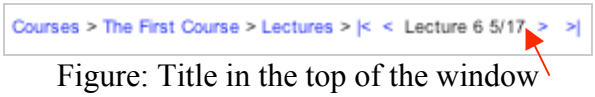
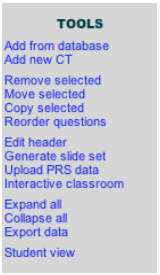


Figure: Title in the top of the window

The following tools are available on this site:



Tool 1: Add from database

The ILT offers a database with an increasing number of CTs. You are welcome to use these CTs and/or add your own CTs to the public database. You can also create CTs for your private use.

Figure: CT database search.

You can look for CTs by typing a keyword and selecting a topic or just clicking on the "search" button to navigate among all.

Note: The CT database is currently transferred to the LON-CAPA system (www.lon-capa.org). As soon as this process is finished, most of the CTs are publicly available. This will be announced on the website of the LT3 project (http://mazur-www.deas.harvard.edu/lt3). If you want to access these CTs before, you need to get specific access privileges. Please contact the ILT staff for more information.

The default topic is the one that you set up in the Course home page.

You need to specify a topic before browsing the database. This feature will be disabled once the migration to LON-CAPA is complete.

You can set it to look only in CTs authored by you and include or not the CTs that you already selected for the course.

Please note: the upload of the CTs may take some time, since they are pulled in from the Harvard server. This problem will be resolved with the LON-CAPA migration.

Once you have a list of CTs in your window, you can navigate the database through the links at the top of each CT (red circle in figure below)

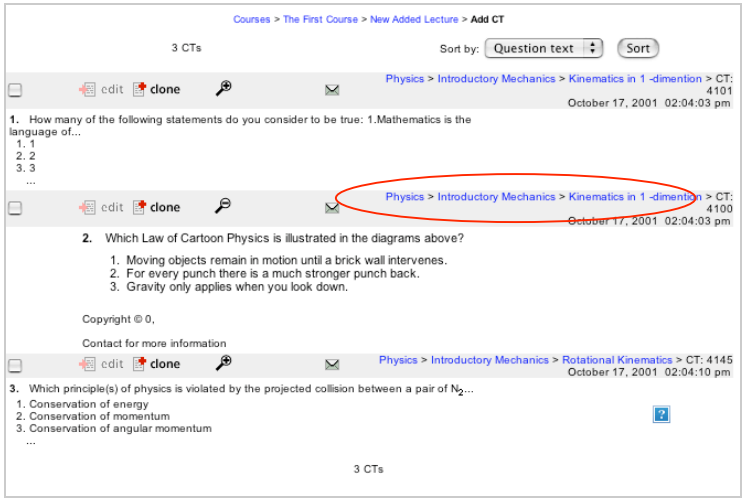
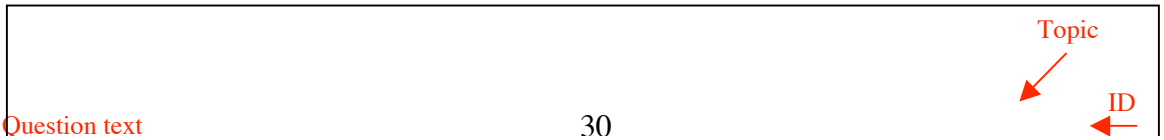


Figure: Window that shows the CTs available from the database with the word "physics". CT number 2 is expanded to see all the content. CT 3 is missing the image. Red circle points the CT path.

Each concept test has several features shown in the list. You can use them to sort the list in different order. You can use the "sort" button in the top right corner to sort by question text, date created, topic, status or ID.



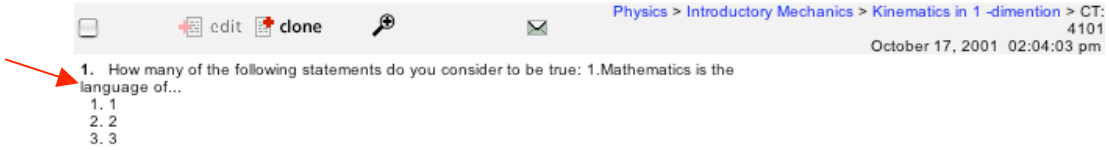


Figure: description of a concept test

Icons to manage the list of CTs:

clone By cloning the CT you can make modifications to it. (see modifying a CT)

edit By clicking in the Edit link you can edit a CT that you have modified.

By clicking in the magnifying glass you expand or collapse a CT in the list. The Tools menu offers options to expand or collapse all the CTs on the list.

By clicking in the envelope icon you can add feedback to the CT for future visitors. (It is also a very fast way to see the complete CT instead of expanding).

Tools in this page:

New search and search within the results

You can continue looking for the CT you want by searching within the results or starting a new search. You can also navigate the database by clicking in the topic title instead of using the search engine.

Generate slides

The "generate slides" tool will create a PDF file with the selected CTs, one per page.

Add to lecture

Choose the CT you want to add to your lecture. Once you have found the CT or CTs you want, select the respective box and click on the tool "Add to lecture".

Once you have clicked on the "Add to lecture" tool, you are automatically redirected to the Lecture content page. It now contains the list of CTs you have assigned to it.

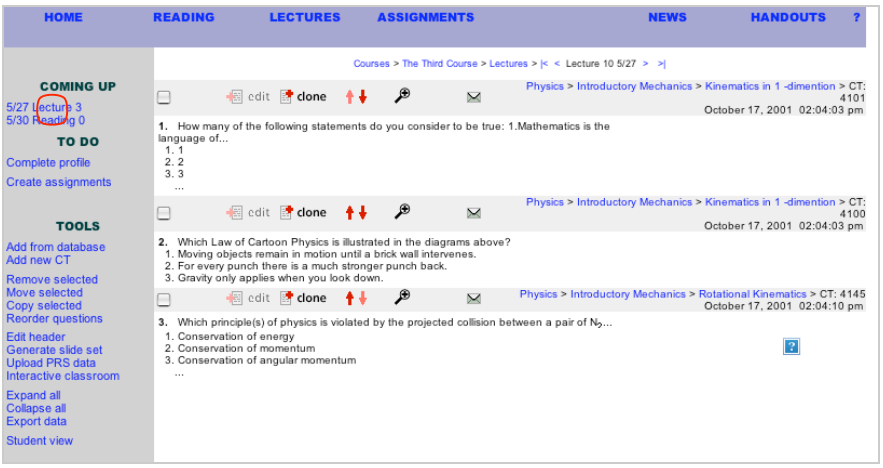


Figure: Lecture's content page, listing the CTs selected for that lecture.

Clone CT

You can duplicate and edit CTs. Select the once you want to change, click on "clone" and you will be able to change the different elements of it, add new ones, or delete.

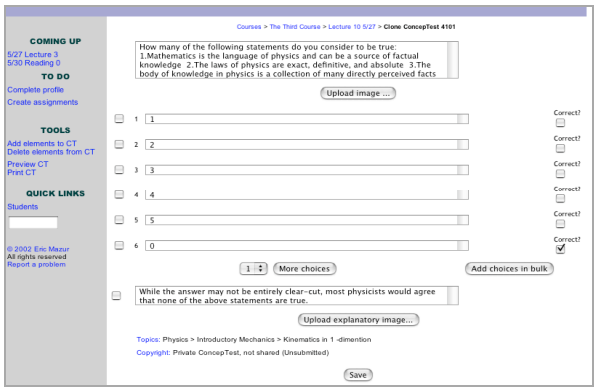


Figure: clone CT window

Tool 2: Add new CT

You can add your own CTs to your lecture. You can delete the fields you do not want to include by clicking in the corresponding box and clicking the tool "delete elements from CT'. You can also add them with the tool "Add elements to CT". A preview tool allows you to see how the CT looks like before you submit it.

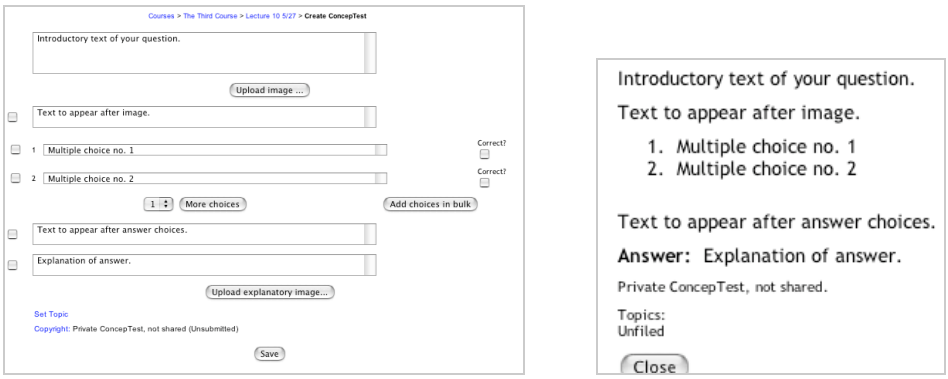


Figure: "New CT" form (left) and respective CT preview (right)

Click on the "Set Topic" link to select the topic to where your CT belongs. You can select more than one topic. Click on "done" or "cancel" to go back.

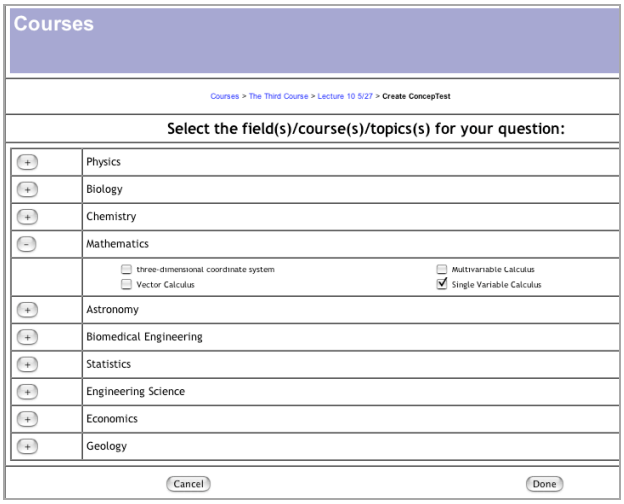
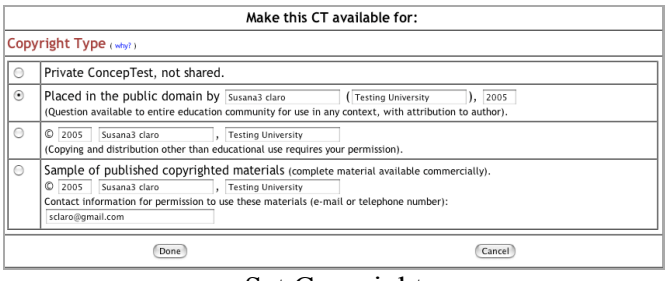


Figure: Topics list to classify the new CT-

You can a copyright to your concept test in case you want it to share it in the public database. Select the category that best fits your interests.
By default, your CTs are set as Private and not able to share among the other users of the Toolkit. We encourage you to consider making it public.



Set Copyright

Please note: We are aware of problems with the "Select topic" feature, especially on Windows machines. We work on resolving these issues.

Tool 3: REMOVE selected

This tool allows you to remove a CT. Select the corresponding box beside the CT and click on Remove.

Tool 4: MOVE selected

You can move a CT to other lecture. Select the corresponding lecture and move the CT the lecture to a destination lecture of your choice or press "go back" to cancel.

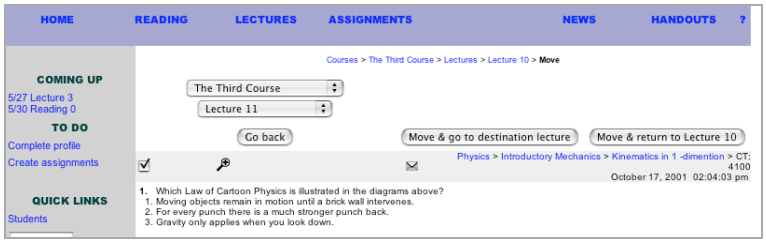


Figure: move selected CT

Tool 5: COPY selected

This is a tool designed to copy a CT from one lecture to another. The default settings will copy the CT to the following lecture (specially suited to review the last CT of the previous session, for example).
Select the destination lecture or press the "go back " button to cancel.

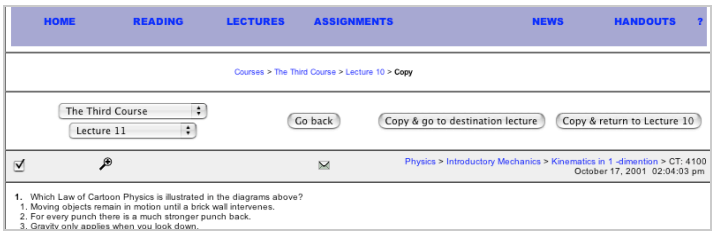


Figure: copy selected CT

Tool 6: Reorder Questions

"Reorder Questions" tool let you rearrange the order of the CTs in a lecture.

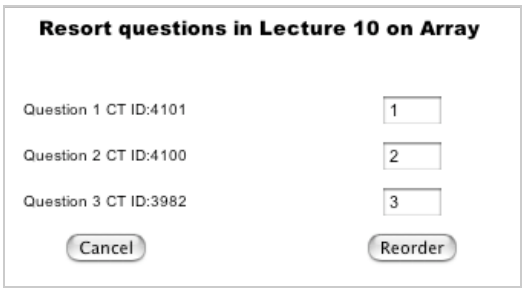


Figure: Reorder CTs

 The red arrows on the title of each CT allow you to re-arrange the order of the CTs one by one, on the Lecture Content page. The arrow is disabled if it is not possible to move the CT in that direction. In that case it will appear orange.

Tool 7: Edit Header

The tool "Edit header" directs you to a page containing the lecture settings. This enables you to change any element as appropriate.

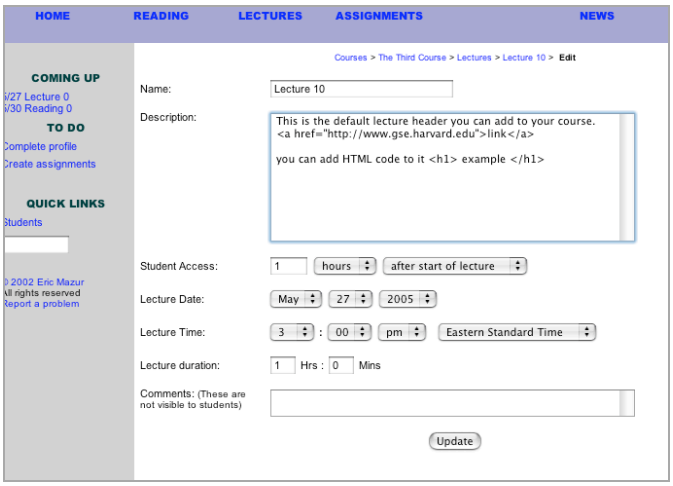


Figure: Edit Header page.

Tool 8: Generate Slide Set

You can generate slides for this lecture using the "Generate slide set" tool.
The system will create a PDF file with one CT per page and download it onto your desktop.

Tool 9: BQ Interactive Classroom

This link only shows up if you have selected the option that both the ILT and BQ program run on the same server (see BQ settings on the courser homepage). Clicking on this link, you will see the following message:

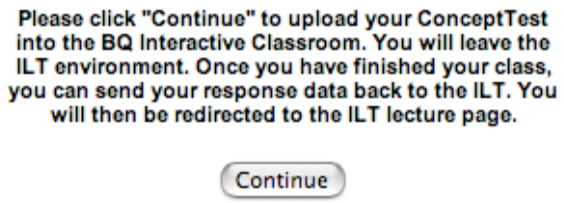


Figure: Launch BQ site.

By clicking on the "Continue" Button your ConceptTests will be uploaded to the BQ program on the same server and you will be forwarded to a BQ website from which you can open an interactive classroom session using these ConcepTests. For information how to navigate and configure the BQ session and how to upload the student response data back to the ILT, please consult the BQ manual available on the ILT-BQ website.
If you use the server-server settings for both programs, your students will be able to access the BQ session by clicking on the specific lecture link on their course website. This link will be active between the start of the lecture and the time you have set to make the ILT lecture page available. If you have, for example, set the student access to become live 90 min after the start of the lecture, students will be forwarded to the BQ session between the start of the lecture and 90 min after that.

Tool 10: Upload CT response data

Once you have sent the student data back to the ILT, click on this link to get access to the individual CT statistics and to view the student grades for this lecture. A histogram icon will appear in the grey margin . Clicking on this icon, you can view the CT statistics:

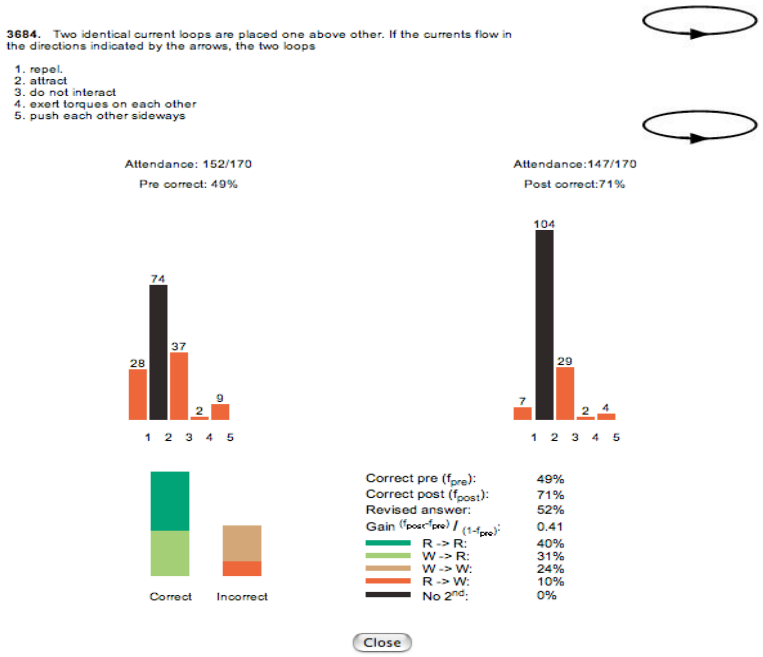


Figure: Example of a CT statistics page.

In addition, the CT grades for each student will be displayed in the facebook and on the "Grades" page on the students page. Grades will be automatically assigned on the basis of participation.

Tool 11: Expand All/Collapse all

These tools expand and collapse, respectively, all CTs of the lecture list.

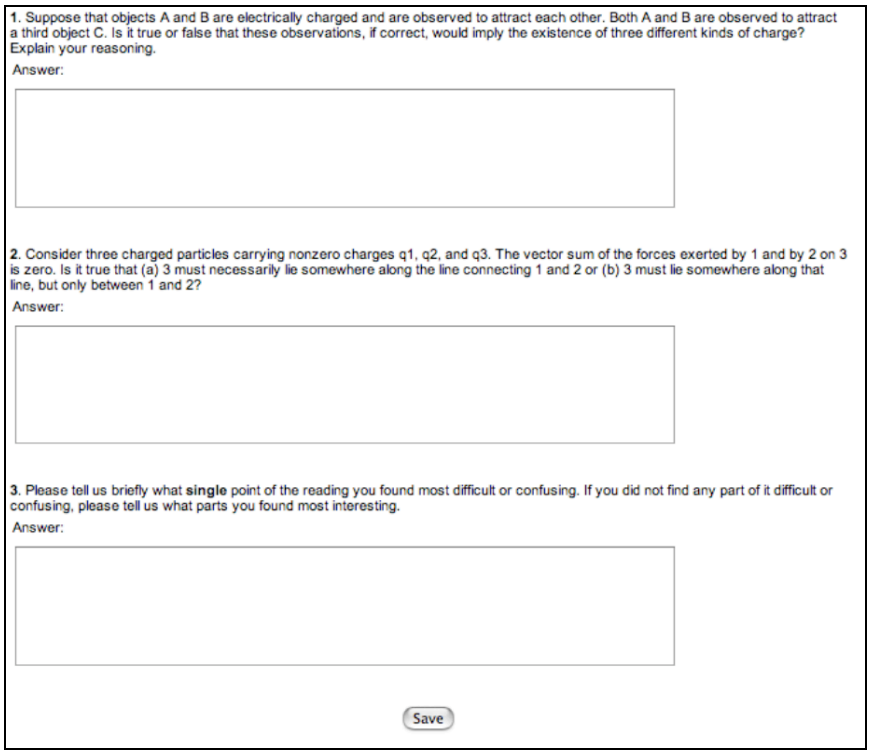
Tool 12: Export Data

This tool will download a CSV (Comma Separated Value) document with the data of your students' responses in class.

Readings Module

The Reading tool facilitates the use of Just in Time Teaching (JiTT). The students read an assigned text before class and answer questions related to the reading online. The questions are usually chosen to probe the conceptual understanding of the students. The answers help the instructor to recognize the main difficulties the students have in understanding the material and to prepare the lecture in a way most beneficial to the students.

The following is an example of a Reading Assignment for an Electrostatic lecture.


1. Suppose that objects A and B are electrically charged and are observed to attract each other. Both A and B are observed to attract a third object C. Is it true or false that these observations, if correct, would imply the existence of three different kinds of charge? Explain your reasoning.

Answer:

2. Consider three charged particles carrying nonzero charges q1, q2, and q3. The vector sum of the forces exerted by 1 and by 2 on 3 is zero. Is it true that (a) 3 must necessarily lie somewhere along the line connecting 1 and 2 or (b) 3 must lie somewhere along that line, but only between 1 and 2?

Answer:

3. Please tell us briefly what **single** point of the reading you found most difficult or confusing. If you did not find any part of it difficult or confusing, please tell us what parts you found most interesting.

Answer:

Save

Figure: Reading Assignment for an Electrostatic Lecture of Physics 1b, spring 2005

Reading Assignments module homepage

Once the Reading module is added, a link "Reading Assignments" will appear in the "To Do" list. This link will allow you to automatically create one reading assignment per lecture. You need to create the lecture schedule before using this feature.

The "Reading assignments" link will direct you to the window in the following figure.

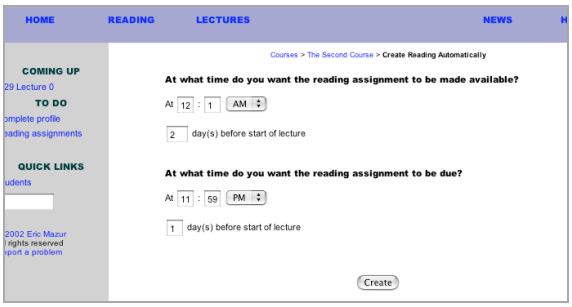


Figure: Creating Readings Automatically

Here you can set the time frame in which students can submit their answers.
The default settings open the assignment for two days, and close it one minute before the day of the lecture. Keep in mind that the ILT time works on EST, unless you are running it on a local server.

After clicking the "Create" button" the system will automatically assign one reading per lecture. If you want an assignment not to be related to a lecture, use the "Assignments" module instead. In the "Reading" module, each reading assignments must be associated with a lecture.

After you have submitted the time settings, you will be directed to the "Reading" home page. This page displays the list of reading assignments for the course. It looks very similar to the Lectures page, since each reading has been paired with a lecture. Once you have edited the lecture schedule in the "Lecture" module, you can use the "Edit Schedule" tool correspondingly edit the reading schedule To administrate content of a specific reading assignment, to change the date, grade, or to check the responses, click on the corresponding link.

The upcoming assignment is indicated by a red triangle next to it. It will also be listed under the "Coming Up" menu. The number next to it represents the number of questions per reading assignment.

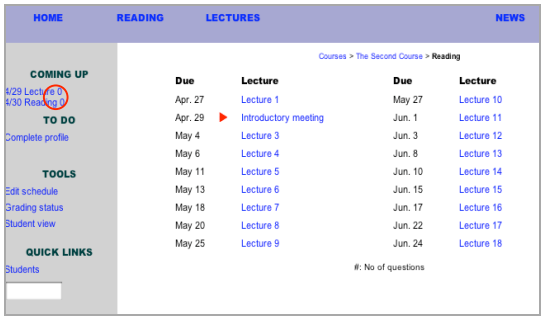


Figure: Reading Module home page with list of assignments.

Edit Schedule Tool

The "Edit Schedule" tool allows you to add and erase readings. To delete a reading, select it and click on the tool link. To add readings click in the "add reading" tool. You can change the title of the lectures here by rewriting it. You may add a description to each reading. Do not forget to click "save" before leaving the page.

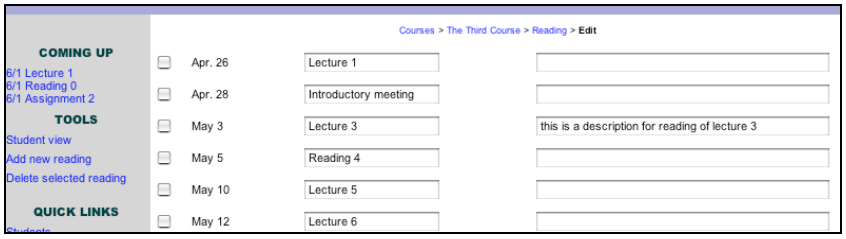


Figure: "Edit Schedule" page.
Use it for adding/deleting readings, add comments and change lecture titles.

Add reading

From the "edit schedule" page you can add new readings to existing lectures. You can only add readings to already created lectures. When adding a reading, the system will list the lectures that do not have a reading assigned to it yet. In the picture, for example, there is one lecture available, so you can add a reading for that extra lecture only. If you do not have lectures available, the window will show you the message: "All lectures have reading assignments assigned to them".

Check the box that corresponds to the lecture. Determine the starting and ending dates that the reading will be available to the students. Click the add-button. Keep in mind that the ILT time works on EST, unless you are running it on a local server.

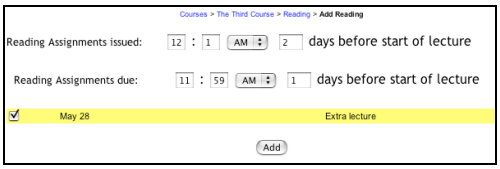


figure: add reading window

Adding content to a reading assignment

From the Readings homepage click on the title of the reading assignment you want to work on. You will have a list of tools to add content.

Figure: particular reading's content page (i.e. "Lecture 3" 's reading assignment)

Navigating through the module

The title of the lecture that corresponds to the assignment you are working on appears in the upper title (see image), under the blue margin. You can go to the next or previous reading by clicking in the corresponding arrows '>'. You can go back to the "reading homepage" by clicking "reading" in the top menu. You can go to the last or first reading clicking the ">|" or "|<" symbols.

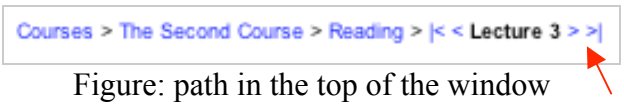


Figure: path in the top of the window

View of a particular reading assignment

To view the questions and the student responses, access the Reading module and click on the particular reading assignment you are interested in.

You can edit any question by clicking on the "edit" icon and you can change the order of the questions by clicking on the red arrows (indicated by the red circles in the figure below). You can delete a question by selecting the corresponding check box and clicking "Delete selected questions". You can also use the other tools listed in this chapter.

By clicking on the "View answer " link you can view all student's responses to a question, send them emails, and create a notebook with the frequently asked questions for that reading (for more detailed description, see the next section "Notebook"). Students will have access to this notebook in the readings module.

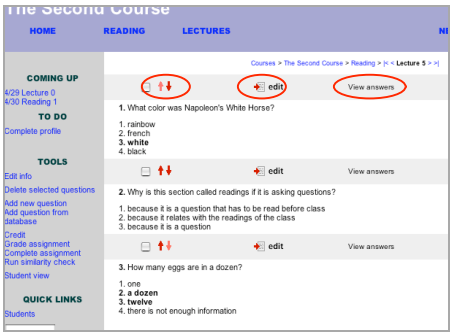


Figure: View of a particular reading assignment.

The following tools are available from this site.

Tool 1: Edit info

Use the "Edit info" tool if you want to edit the issue and due dates for this particular assignment. You may add a description that will appear as the heading of the assignment in the students' site. Please use HTML code to include links, images etc.

Figure: edit information page

Tool 2: Delete selected questions

Once you add questions to a reading assignment (see sections below) you can select them and click on the "delete" tool to delete them from the reading.

Tool 3: Add new question

To create a new question, click in the "add new question" tool and complete the form. Type a question text and the respective answer. The answer can be of two types: multiple choice or text answer. In the first case you can offer up to 5 choices with more than one correct choice. In the latter case students will find a text field to submit their answers. Please provide an answer explanation for every question. This answer will be displayed to the students together with the question after the reading assignment is due.

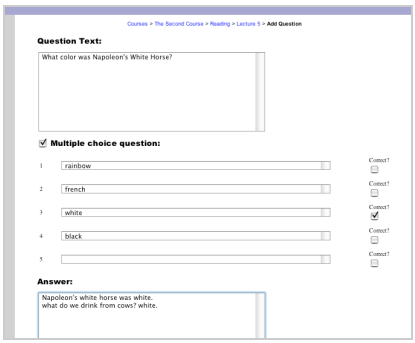


Figure: Add new question.

Tool 4: Add question from database

All questions that you create with the "add new question" tool will form a small database available for any reading assignment in the course. To add an existing question from this database click on the "Add question from database" tool, select the questions you want to add to the reading assignment and click on "Add selected questions". The questions that are already in your reading will appear with a note.

You may edit the questions with the "edit" link.

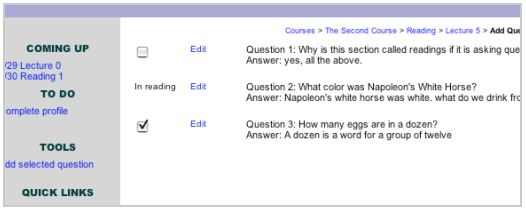


Figure: Add question from database

Tool 5:Credit

Add credit points to particular students. Click on the "Credit" tool and select the students to credit. Enter a comment to identify the credit and the amount of points for it. Do a search to select the correspondent students. Click the Credit-button to add the points to the students.

Selected students will received the credit points on each of the questions of the assignment.

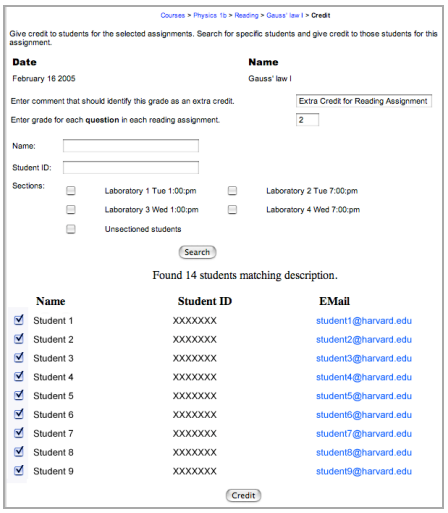


Figure: Credit Reading Assignment after doing a search.
All students are selected to receive extra credit.

Tool 6: Grade assignment

The ILT automatically assigns 2 credit points for every answer submitted by the students. Once the reading assignments are submitted, any member of the teaching staff can change this grade on the basis of the policy defined in the course. Select the students and question you want to grade, and enter the grades. To select the students you can do a search by name, student ID, or section. If you do an empty search, the system will list all the students in the course. You can then export and import the data in CVS format.

Grades need to be inserted by hand, student-by-student, and question-by-question. Please note that the grades page in the instructor view will show the automatically assigned grade once the due date has passed. The student will only see his/her grade once the manual grading is saved.

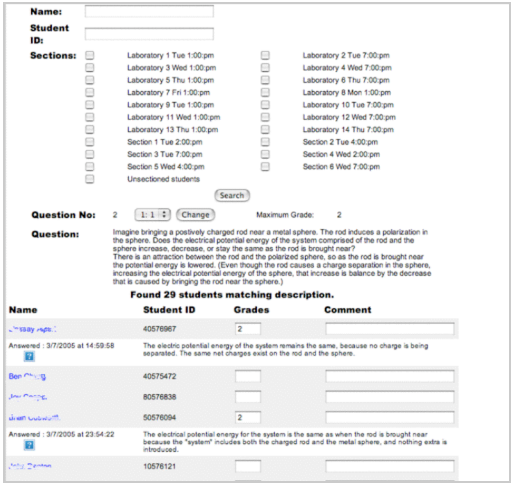


Figure: grade reading assignment page

In the figure, students from Section 1 are listed with their answers.

You can choose the question you want to grad from the pull down menu. The number before the column is the number of the reading assignment, the number after the column is the question number.

Insert the grades for each student. You can add a comment that the student will read on her grade report.

Students' grade data can be exported or imported by clicking the corresponding link. Please be careful when uploading grades. The format of the import file must be exactly the same as the export files. Please study the export file format before using this utility.

NOTE: Importing data will erase the old data if any exists for the students

Tool 7: Complete Assignment

There may be cases where you will need to enter student responses into an assignment. This tool allows you to do that.

Enter the student name and the time you want it to be registered as submitted.

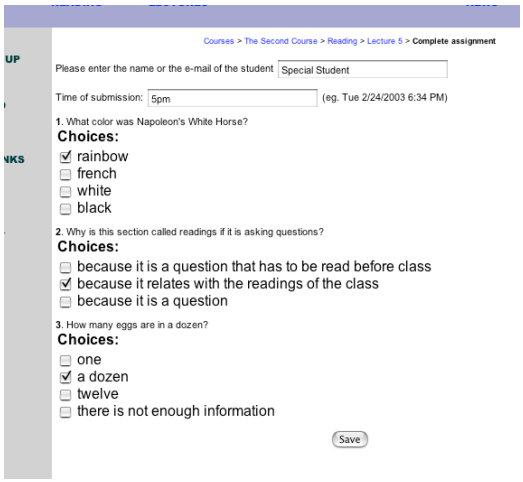


Figure: The Complete Assignment tool.

Tool 8: Run similarity check

To be added.

Tool 9: Student view

While the reading assignment is open, students are able to submit their answers. Once it is closed, the question and answer as provided by the instructor will be displayed. For a

more detailed description please see the student manual.

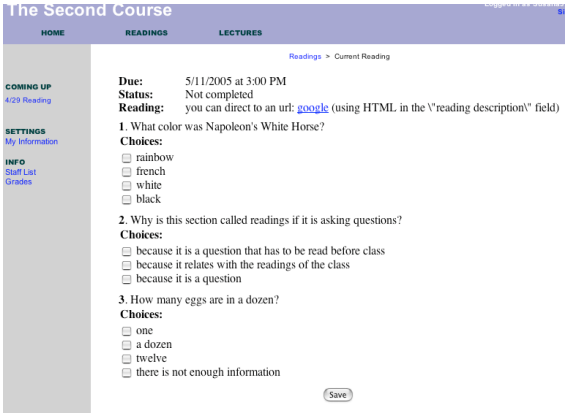


Figure: Student view of a reading assignment.

Answer View and Reading Notebook

Click in the "view answer" link on the reading content page to access to the "student responses" page.
Select the student's question you want to review by clicking the correspondent link.

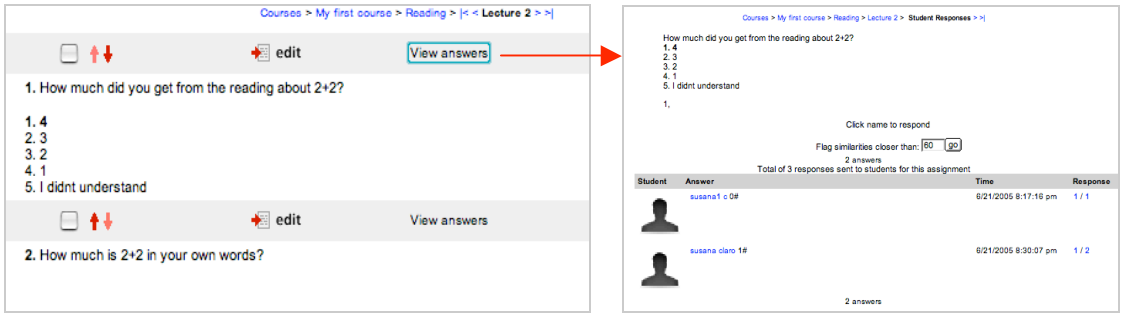


Figure: Reading Assignment content on the Readings module (left).
Click on "view answer" to view the student responses for the reading assignment (right).

On the Student Responses page you will have the list of students and their answers to the corresponding question.

You can respond to the student directly if you click on his name. This feature only works if you have setup the e-mail connection correctly (see "Manage e-mail connection"). Create a CT or a FAQ response that will be added to the Reading Notebook (see below). You can view the student's facebook by clicking on the picture. Two numbers are listed in the "Responses" column. The first number indicates whether you have responded to the student for the specific reading assignment displayed. The second number is the total number of reading assignment responses given to the student during the course. The ILT automatically reorders the entries according to the number of total responses. Students

with the least number of total responses are on top of the list.

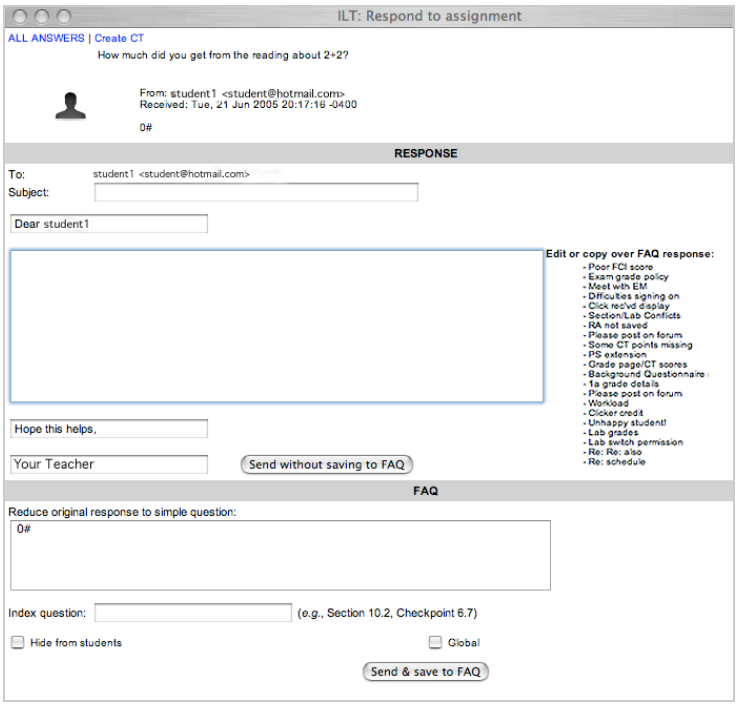


Figure: Respond to Reading Assignment Page

The "Respond to Reading Assignment" window (figure above) let you perform several actions:

- **View all answers:** Click the "All answers" link in the top left corner to view all the answers that the student submitted for this reading assignment. This tool helps you to get a broader view of her understanding of the topics covered in the reading.
- **Create a CT:** the student response can inspire you to create a CT to address conceptual difficulties in class. To create this CT click the link "Create CT" in the top left corner of the window.
- **Email response:** send an email message to the student. The ILT provides a default heading and wishes. It also adds your name at the end. You can change any of these items. Use FAQs responses to answer repetitive questions.
- **FAQ responses list:** on the right of the email message content is the FAQ list (Frequently Asked Questions) that you have saved during the course. You can select any of these answers to be copied in the content of the message. Once there, you can edit or send it right away. Click the arrow to transfer the FAQ to the body of the email message. Click on the title of the FAQ to edit the content of the FAQ.

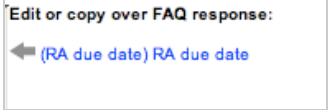


Figure: FAQ response list with one item.

- **FAQ creation:** create a FAQ response at the bottom of the window. Type a question that relates to the response and give it an "index question" as a short name for future reference. This index will appear in the "FAQ responses" list on the right. Chose to have this response public or hidden to students. Public FAQ will be published in the Notebook.

  To edit the FAQ later, click on its index name on the right list. A pop-up window will let you modify the subject, index, question and answer of the FAQ. You can also change the "Hidden" and "Global" settings.

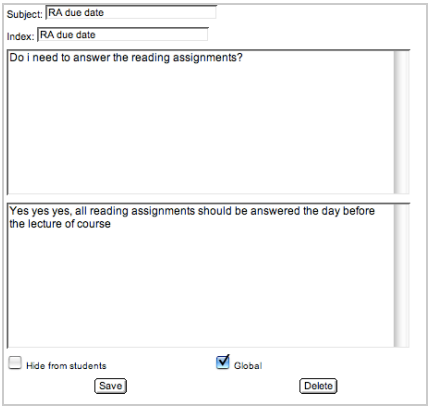


Figure: Edit FAQ response

FAQ responses that are not hidden from students will form part of the reading's notebook. Students will have access to this notebook once the reading assignment is closed. In order to access it, they will need to access the corresponding reading assignment and click on the "Notebook" link on the upper left corner of the window. A pop-up window will show a menu with the list of FAQs and answers provided (see figure below).

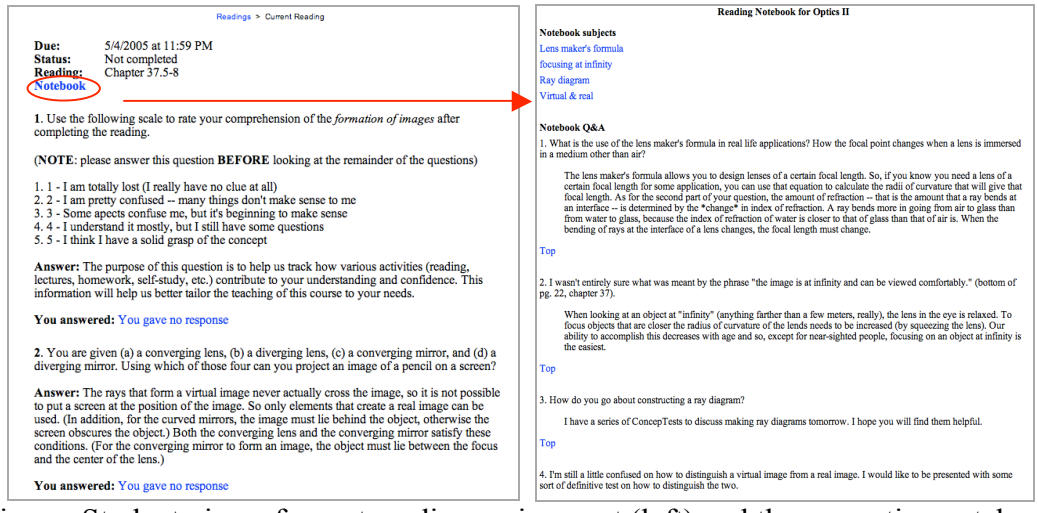
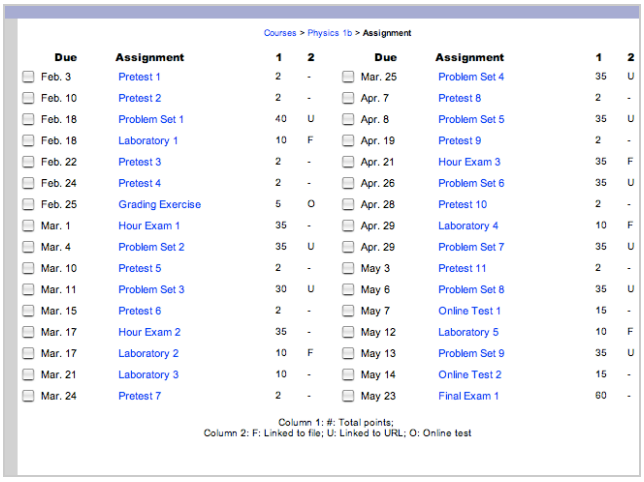


Figure: Student view of a past reading assignment (left) and the respective notebook (right).

Assignments

In order to constantly assess the progress students make in their understanding of the course material, it is important to set graded assignments on a regular basis. While the "Lecture" and "Reading" modules are aimed to support new pedagogies, i.e., Peer instruction and JiTT, the "Assignments" module facilitates the more traditional assignments. Common categories are in-class tests, like midterms, final exams and pretests as well as weekly problem sets and labs. The "Assignments" module allows you scheduling and grading assignments, uploading files and much more. The ILT toolkit offers an efficient system to coordinate different teaching assistants grading different questions. The grades on each assignment category will be automatically stored in the student's facebook (See Face Book chapter).



Courses > Physics 1b > Assignment

Due	Assignment	1	2	Due	Assignment	1	2
Feb. 3	Pretest 1	2	-	Mar. 25	Problem Set 4	35	U
Feb. 10	Pretest 2	2	-	Apr. 7	Pretest 8	2	-
Feb. 18	Problem Set 1	40	U	Apr. 8	Problem Set 5	35	U
Feb. 18	Laboratory 1	10	F	Apr. 19	Pretest 9	2	-
Feb. 22	Pretest 3	2	-	Apr. 21	Hour Exam 3	35	F
Feb. 24	Pretest 4	2	-	Apr. 26	Problem Set 6	35	U
Feb. 25	Grading Exercise	5	O	Apr. 28	Pretest 10	2	-
Mar. 1	Hour Exam 1	35	-	Apr. 29	Laboratory 4	10	F
Mar. 4	Problem Set 2	35	U	Apr. 29	Problem Set 7	35	U
Mar. 10	Pretest 5	2	-	May 3	Pretest 11	2	-
Mar. 11	Problem Set 3	30	U	May 6	Problem Set 8	35	U
Mar. 15	Pretest 6	2	-	May 7	Online Test 1	15	-
Mar. 17	Hour Exam 2	35	-	May 12	Laboratory 5	10	F
Mar. 17	Laboratory 2	10	F	May 13	Problem Set 9	35	U
Mar. 21	Laboratory 3	10	-	May 14	Online Test 2	15	-
Mar. 24	Pretest 7	2	-	May 23	Final Exam 1	60	-

Column 1: #: Total points;
Column 2: F: Linked to file; U: Linked to URL; O: Online test

Figure: Physics 1b example of Assignments created.
Categories used are Pretest, Problem Set (linked to specified URL 'U'), Laboratory (file to download 'F'), Grading Exercise (online test 'O'), Hour Exam and Final Exam (no link).
The numbers in column 1 show the maximum amount of points per assignment.

Create Assignments

To add assignments to your course, you will first need to add the correspondent module at the Course Homepage (see chapter Course). Once created you can access the Assignments Module by clicking on "Assignments" in the top margin or by clicking on the link "Create Assignments" that will appear at the "To Do" menu.

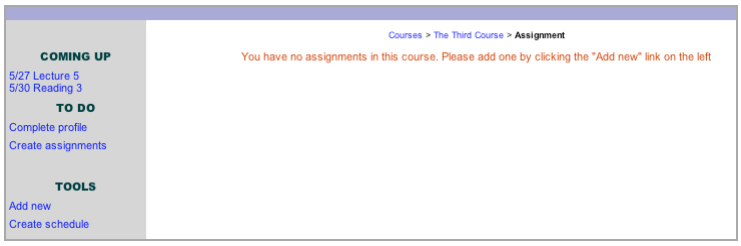


Figure: Assignments Home page, first entrance.

Home Tool 1: Add New

Start creating a new assignment by clicking in the "Add New" tool.

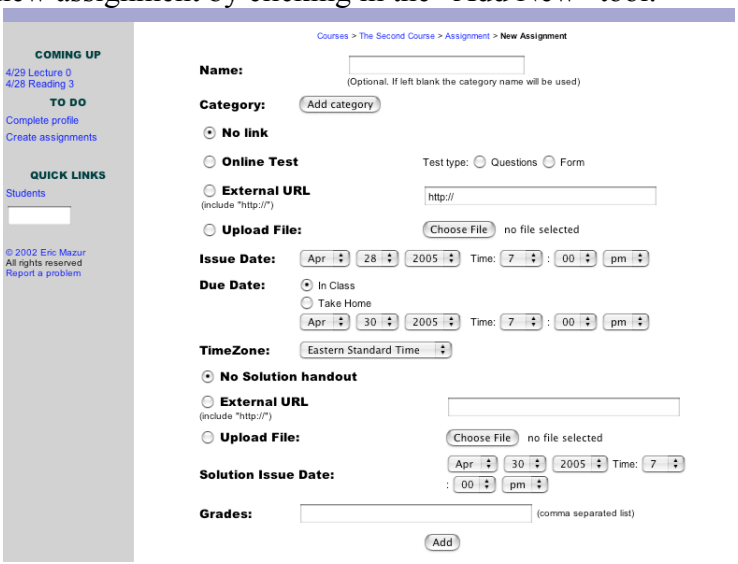


Figure: Add New Assignment form.

Assignments need to be grouped in categories. You cannot add any assignment if you have not created a category.

Adding a Category

Click on the button "add Category" that will be available in the "add new assignment" page. After the first time you enter this page, the button will say "Edit Category". This button will launch a pop-up window that will offer you the option to create a list of different categories.

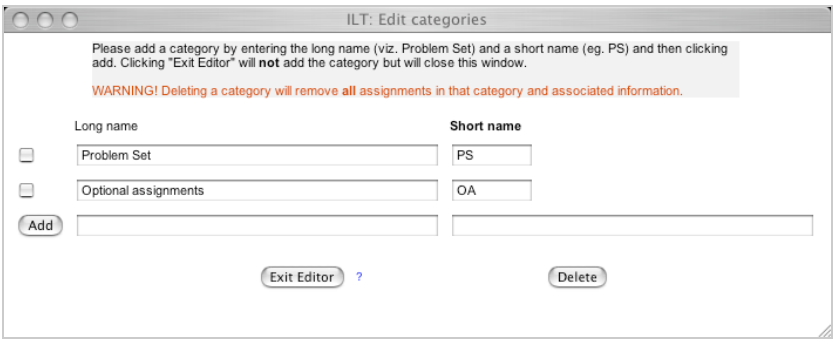


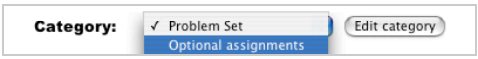
Figure: "Create and edit categories" pop-up window. There are two categories in the list.

To create a category you need to enter a long and a short name. An example of categories is the *Problem Set* with short name *PS* (see figure). The long name will be used to name the assignments under this category; the short name will be used on the student's face book as a label for the column showing the grades of the corresponding assignments. Click the Add-button to create the new category to the list of categories. Click in "Exit Editor" when you are done. Clicking "Exit Editor" will **not** add the category.
To delete a category select it in the list and click the Delete-button. WARNING! Deleting a category will remove **all** assignments in that category and associated information.

Assignment information

Once you have defined a category, proceed to complete the information that the system requires to create an assignment. You can edit any information you submit later. The settings are as follows:

1. Name: You can type a name for this assignment or leave it blank, in which case the category name will be used.
2. Category: Choose one category from the list created. You can edit the list available by the "Edit Category" button. Remember that deleting a category will erase all assignments in this category.



3. Assignment link type: Check one of the radio buttons:
No link: if the assignment has no on-line content (for example: in-class test).
Online Test: *if the assignment will be answered on-line. Choose "question" if you will be adding each question individually or "form" if you want to use a prepared html-form*.
External URL: For an assignment in an external URL. Include "http://" in the URL.
Upload File: If the assignment is a file that the students will download. Click on the button to browse and upload the file.
4. Issue Date: date that the assignment will become available to students
5. Due Date: Choose whether the assignment should be handed in at the

lecture or define the date and time it should be submitted via mail or on-line.

6. TimeZone: choose the time zone you are working at, this feature is not yet implemented.

7. Solution link: Choose one of the three types to offer the solution of the assignment

No Solution handout: if no solution will be available for students.

External URL: if the answer is posted in an external URL (include "http://")

Upload File: if the answer will be available in a file to download. (Click in the button to browse the required file)

8. Solution Issue Date: The date that the solution (the URL or the file) will become available to students.

9. Grades: The maximum amount of points that a student can get per question. This is independent of the type of assignment.

Click the Add-button to create the assignment. You will be directed to the "assignments home page" where the new assignment will be listed.

Assignments Home

The Assignments module page lists all assignments you have created, ordered by due date.

Next to each assignment there are two columns. Column number **1** shows the maximum amount of points that are assigned to each assignment. The second column shows whether the assignment link is an external URL ('U'), a linked file ('F') or an On-line test ('O'). If the column is blank, no link has been assigned (see figure).

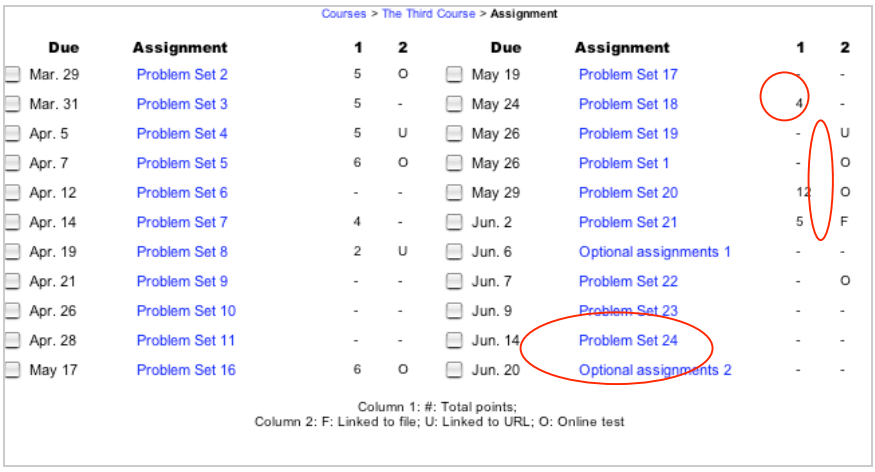


Figure: "Assignments Home page" with assignments under "Problem Set" and "Optional Assignments" categories

Click on the assignment title to edit its content and information. Check the box next to an assignment to delete or grade it (see descriptions of these tools later in this chapter). The upcoming assignment will appear in the "Coming up" menu at the side panel.

Students will only have access to past and current assignments. Their view of the assignment list is shown in the image below. Assignments with a link type assigned are blue, corresponding solutions appear in the second column. Students are able to modify the current assignment at any time before the due date has passed. After the due date they are able to access to the assignment in "read only" mode. The system will provide the solution to students after its issue date (as determined in the assignment's information page).

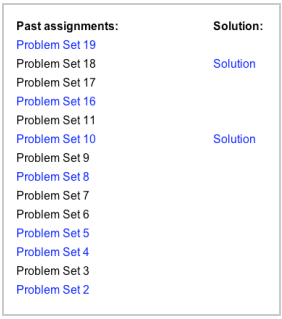


Figure: Student's view of the assignment module.

Editing the content and information of an assignment

Click on the assignment title and you will be directed to the following form:

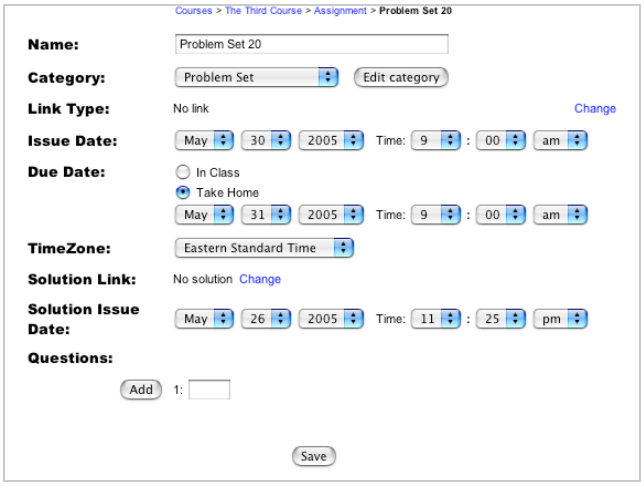


Figure: Assignment "Problem Set 20" page.

This page shows the features of a particular assignment. You can edit the name and category, the issue and due date, and the links for the content and the solution. Use the tools available at the left margin to reset the information of the assignment, erase

question points, or to grade the assignment (see section “Home Tool 4: Grade” later in this chapter).

Disregarding the type of link of the assignment, you can set up the maximum amount of points or grades that a student can get per question. Click on “ add” under “questions” to save the information that you give per question.

The following section describes with more detail how to edit the “Online-Test” assignment type.

On-line Test Assignment: Adding content

Online test assignments require that you add content by clicking in the “Manage online Assignment” link that will be available in the “Link Type” description.

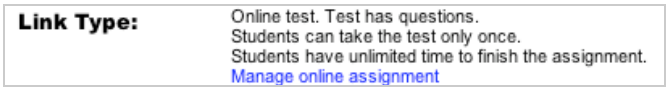
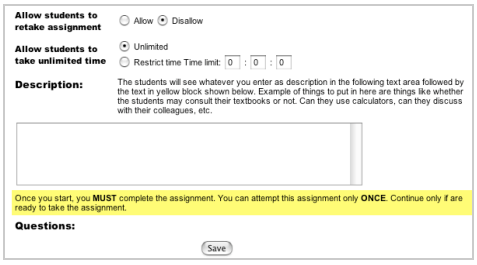
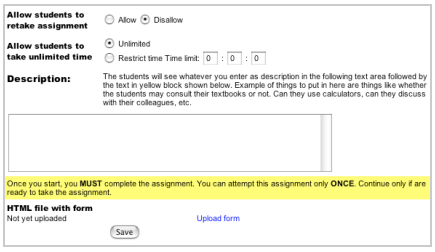


Figure: Link Type information on a particular assignment information page.

You will be directed to a window where you can determine the different conditions for the test and add content to it.

The conditions you can set for the test are whether students are allowed/not allowed to take the test more than once, and the amount of time that students will have available to finish the assignment. You can write down more conditions in the text field available (for example if it is possible to use calculators, textbooks or to discuss with peers to answer the test).





Figures: Window to add content and determine conditions for Online test with questions (left), Online test with form (right)

Upload an html-form if the online test has a form or add questions one by one if it has questions.
The tools available in the left allow you to add and delete questions. If your online test is defined to use a form, you have to upload it before adding extra questions. You can also grade the assignment from this page.

Add new question

Online tests are composed of questions that you can create using the "Add new question" tool.

A pop up window will appear. Fill in the text fields "Question text", "Answer", and "Grade" (the maximum amount of points available for this question) Click the Save-button and the question will be added to the assignment. You can include links and images by using HTML code.

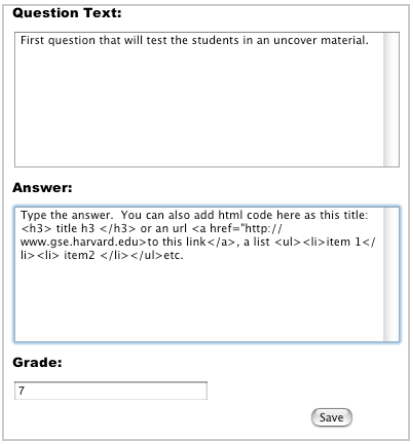


Figure: "Add new question" window for online test assignment.

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Home Tool 2: Create Schedule

You can create a group of assignments of a same category by using the "Create Schedule" tool. The tool "Create Schedule" will be available only after at least one category has been created.

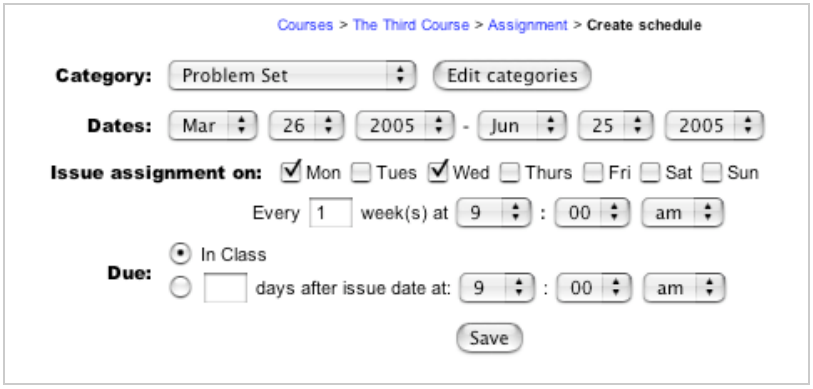


Figure: "Create Schedule" page

Choose the category for the assignments, determine the dates for the first and last assignments, the periodicity in which they will be issued and their due times. Choose "In Class" if assignments should be handed in personally at the lectures or choose a specific time that they should be submitted online.

Click on “save” to create the assignments. You will be directed back to the “assignments home page”.

Home Tool 3: Delete

To delete an assignment check the correspondent check box next to it and click on “delete selected”. All information associated with this assignment will be erased.

Home Tool 4: Grade

In order to grade an assignment, any member of the staff can add points to individual students for a particular question. You can grade one assignment at a time, by selecting it from the Assignments Module homepage or by clicking on the specific assignment in the list. Click on the tool “Grade”.

Grades need to be inserted by hand student by student, question by question, regardless of the type of assignment. The grades will be displayed for each student in the Face Book. The system will offer the statistics (rank, mean, range and distribution of grades) for each assignment and the statistics for all the assignments in the same category (see Face Book Chapter).

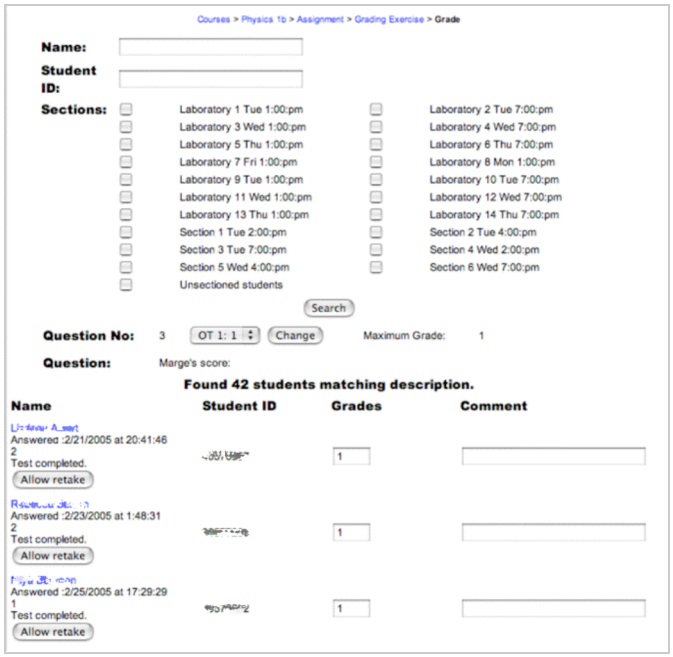


Figure: Grading an Assignment.

Select the students and the question of the assignment you want to grade. To select the students you can do a search by name, student ID, or select a whole section. If you do an empty search, the system will list all the students enrolled in the course.

To select a question, chose it from the pull down menu under the "Question No:" item. In the figure, the selected question is number 3 with maximum grade 1. If the assignment is an online test, you see the question and the solution shown in the window.

A list of students depending on the search criteria will appear at the bottom of the page. Information about the responses will appear, if available (in the case of an online test, for example). You can allow a student to retake a test by pressing the corresponding button.

Insert the grades for each student. You can add a comment at any time. The comment will be available to that particular student on the facebook.

Students' grade data can be exported or imported by clicking the corresponding tool. However, be careful when uploading grades. The format of the import file must be exactly the same as the export files. Please study the export file format before using this utility.

NOTE: Importing data will erase the old data if any exists for the students

Home Tool 5: Grading status

The "Grading Status" page shows the list of all elements that should be graded during the course: the reading tests, concept tests and the different categories of assignments. The columns' labels correspond to the short names of the assignment categories. RA and CT stand for "Reading Assignment" and "Concept Test".

From this page you can access the data of any of this elements and proceed to grade them or get information on the grade statistics.

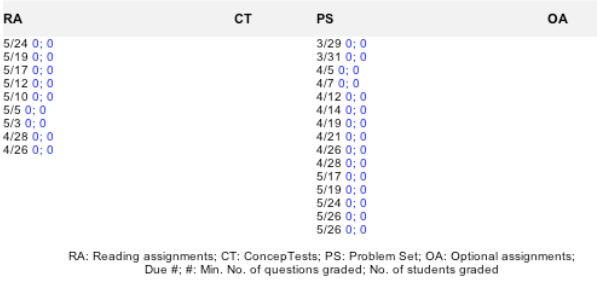


Figure: Grading Status of the course.

News

Instructors often need to make announcements to their students about certain issues of the course. Course web pages are commonly used as bulleting boards to make these announcements official.

For this purpose, ILT included the "News" module, where faculty can manage the announcements of the course. When an announcement is created, students will see a new list appearing in the left hand field of the course webpage. An example is shown in the figure below.

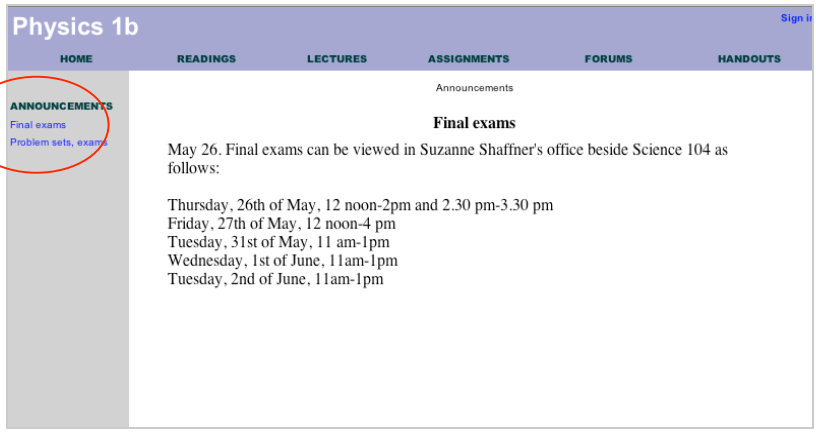


Figure: Physics 1b course page, "Final Exam" announcement

How to create announcements

To access the "News" module, click on the "News" option in the top menu.

Students will know the date it was posted because the system will add the date to the content. The image below shows you the first visit to the module. To add an announcement click on the "Add news" tool on the side panel.

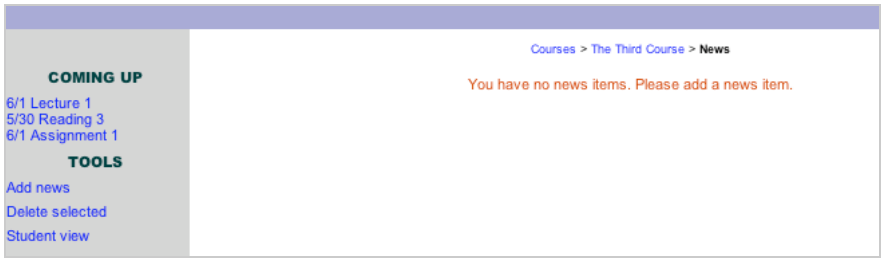


Figure: "News" module site, first visit.

Add news

Click on the tool “Add news”. A form will appear. Fill up all the fields of the form. The News Title will appear in the “Announcement” section on the student website.

To set an expiration date, determine the date from the pull down menus and check the corresponding radio button. You can edit this information at any time Click “add”.

NOTE: Time zone is not implemented. System is running on server time.

Figure: Add news window.

News list

After you have added announcements to your course, the “News” module page will provide you with a list of them.

Expired news are not displayed on the student website.

Figure: “News” module page, list of news before and after expiration.

Edit News

To delete news, check the corresponding checkbox and click “delete selected”. To edit content, title and expiration information, click on the title link. You will be directed to the initial “add news” window with an extra option: “expire now”. Click the “save” button to save changes or return by clicking the “News” link in the top menu.

Student View

Before the webpage have any announcement, the Student View has an empty space in the top left of the side panel. Once the instructor adds news to the course, a new menu called “announcements” will appear in this empty space (see figure below). Students can click on each announcement to read the news. The system will add the date that it was created. Expired news will disappear from the students announcements list.

Figure: Student view of an announcement.

FORUMS

In interactive courses, a lot of emphasize is placed on peer teaching. An online forum is an ideal place to facilitate student discussions about the material covered. This module allows you to create, monitor and actively participate in these discussions.

Clicking on the "Forums" link at the top of the course website for the first time directs you to a page shown in the figure below.

Add forum

Click on the "Add forum" tool. You are required to type a name and a description that will appear on the students website. Click save and you will be directed to the forum's home.

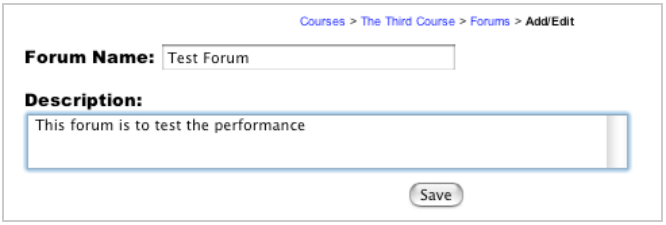


Figure: Add forum

You can access the forum by clicking on the title link.

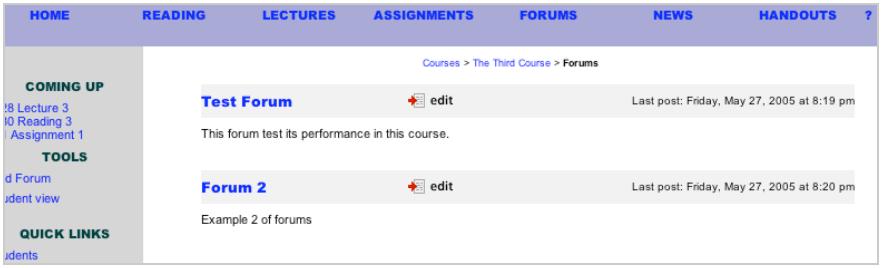


Figure: forums home page with forums

Forums can be deleted or hidden by clicking ion the "edit" icon.

Edit Forum

Title and description of the forums can be changed, deleted or hidden.
When hidden, a word "Invisible" will appear next to the name. A hidden forum will not be displayed on the student website and might, for example, facilitate discussions between members of the teaching staff.

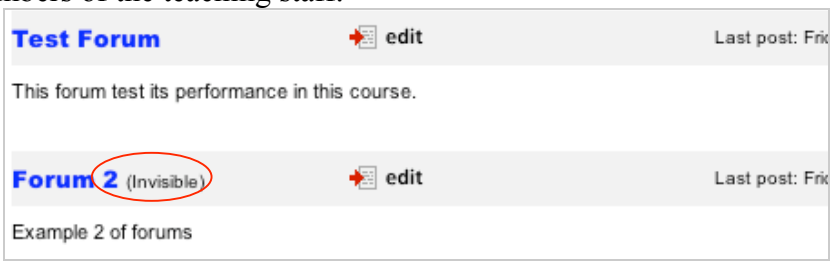


Figure: List of threads. The second forum is hidden from the student view.

Posting topics (creating a thread)

Each forum has the option to discuss different topics. Each topic will become a thread; this means that each response that the students or you post within a topic will be listed as responses to the initial contribution.

To add a topic, enter the title and contribution. To see the topic's responses, click on the title link of the topic. The system will show you the list of responses of that topic's thread (see section "Posting comments in a topic" below)

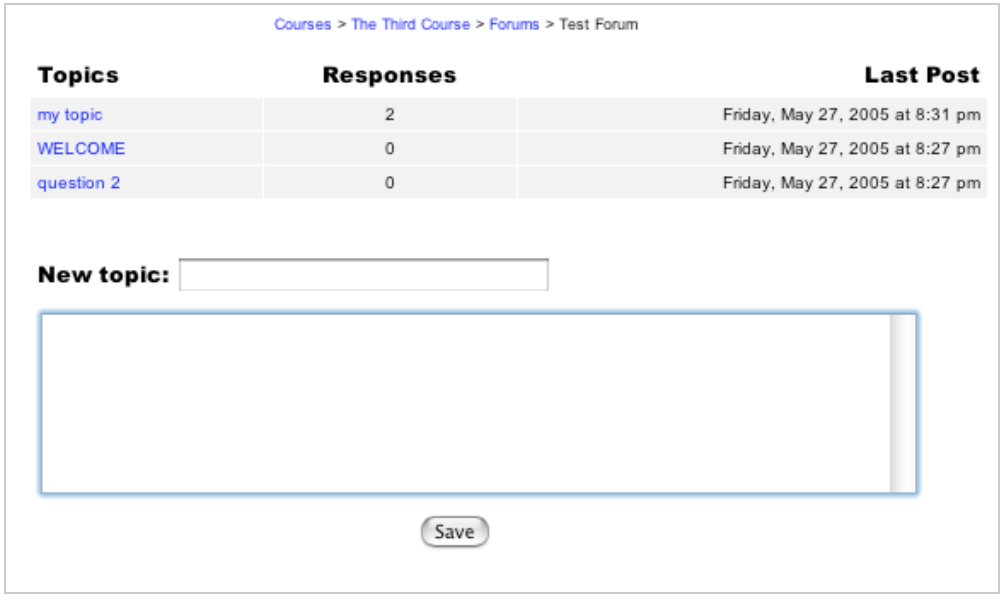


Figure: "Test Forum" page.

Note: Time displayed corresponds to system time of the ILT server.

Posting comments under a topic

To read the responses of a topic and to add a new one select a topic in the forum. You will see a list of postings and responses, ordered by time.

To add a new posting type it in the "Add follow up" text field and press "Save".

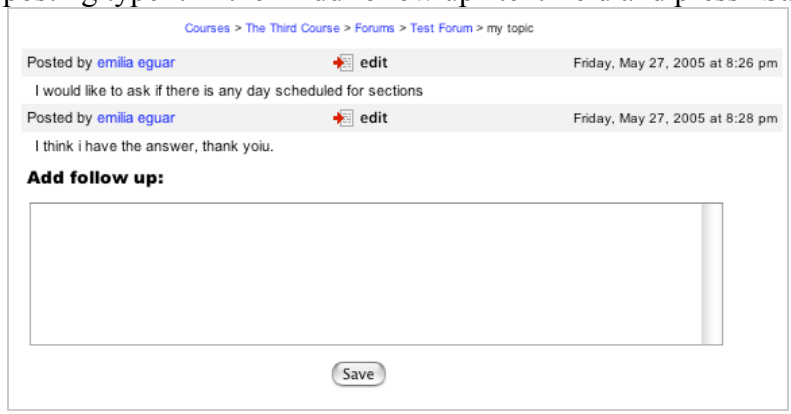


Figure: A topic thread.

Edit postings

You can edit the postings of your students or your own ones. To do so, click in the 

icon. In the Edit window you can delete, hide/show or modify a posting. You can also move it to a different forum if appropriate (see figure below).

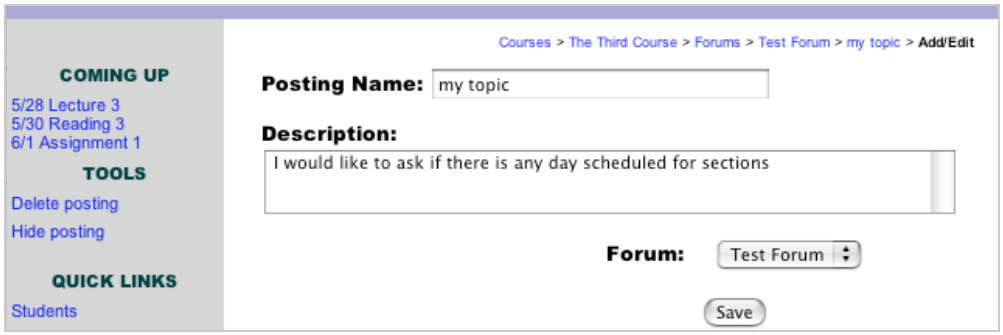


Figure: Edit post

The tools menu offers the option to delete and hide any posting. Delete will permanently delete an entry. Click on "Hide posting" to make the posting invisible for students. Type a new posting name or a description (the response) and save the changes to make them active. To change the topics name of the thread you need to edit the first posting.

Navigation among forums and posts

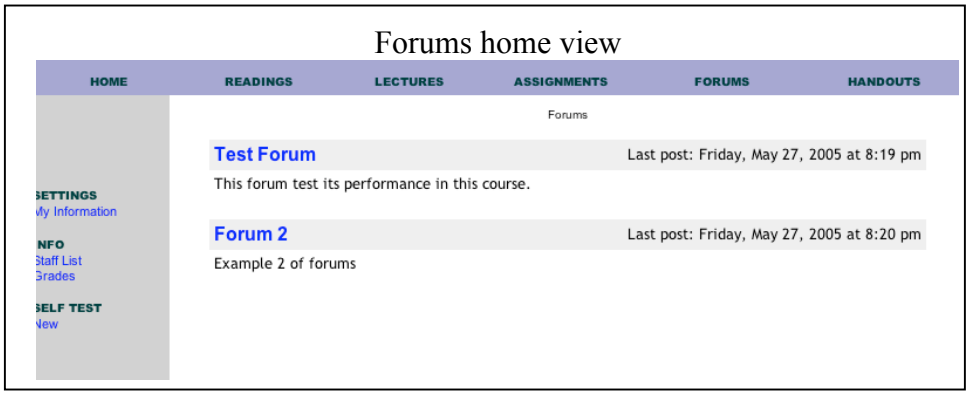
The only way to navigate in this module is by clicking on the desired destination in the path listed on the top of the page.

Student View

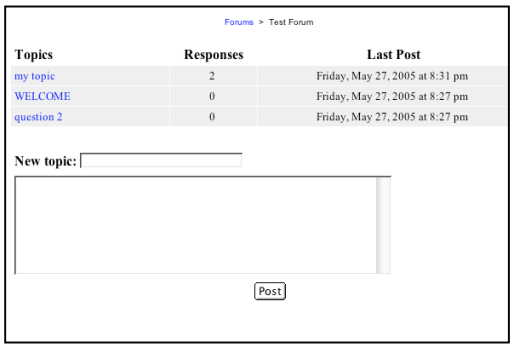
Students can access the forums module from the course home page. The module will offer them the list of visible forums available. They can add, but not edit postings.

This is how students view of the "Forums" module:

Forums home view



Particular Forum view:



Particular Thread view:

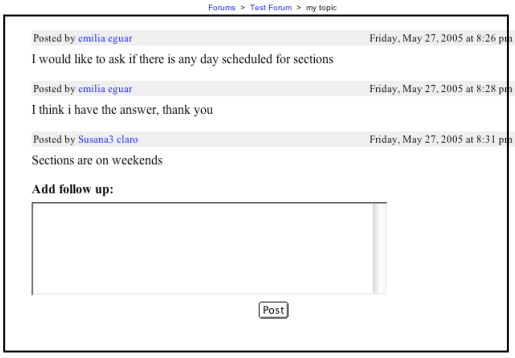


Figure: Student View of the Forum module.

Handouts

Use this page to manage handouts. They will appear in the students' page listed under the respective category created by the instructor. Handouts appear by order created. Here an example:

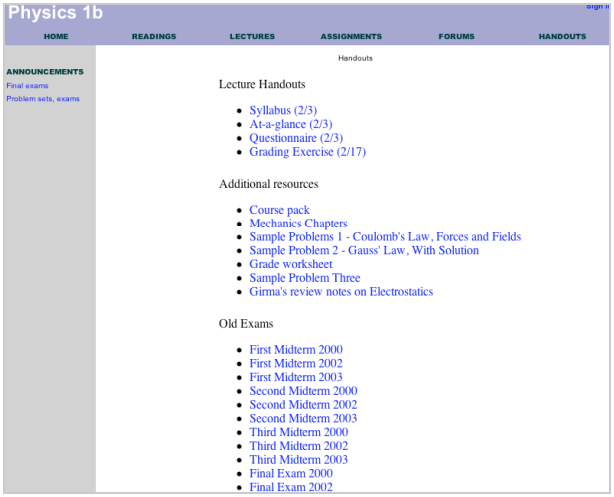


Figure: Example of handouts page

Add the "Handouts" module at the Course homepage. A link will appear on the top margin of the course. Click on it to access the handouts module page (see figure below).

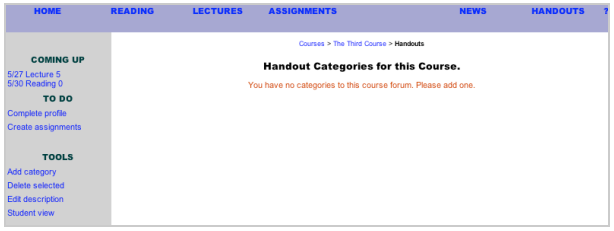


Figure: handouts home, first visit

To add a handout you have to first add a category. You may add categories using the tools menu. To add handouts click on the corresponding category. Be careful not to delete a category, since this removes all its contents.

Add category

Click on the add category tool. Type a name. You can also add a link for the category title.

Figure: add a category window

After adding a category you can edit it by clicking in the "Edit " link next to it.

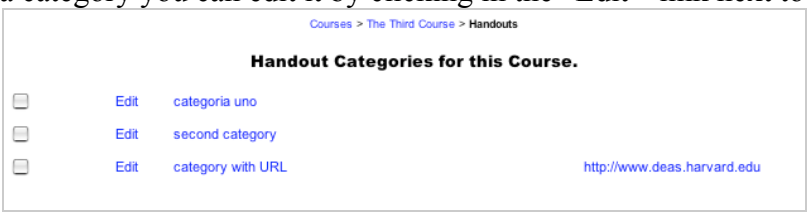


Figure: handouts module page after adding categories. The third category has a link.

Add handouts

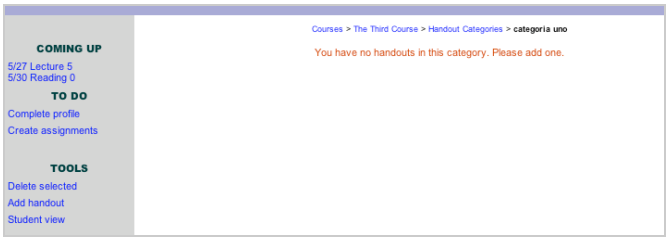


Figure: empty category page

To add a handout, click on the corresponding category. You will be directed to the category page. Click in the "Add handout" tool on the left. However, ILT offer three kinds of handouts.

- Simple text (50 characters).
- External URL has to include "http://".
- Upload File: you can browse your computer to upload a file (usually a PDF or WORD document).

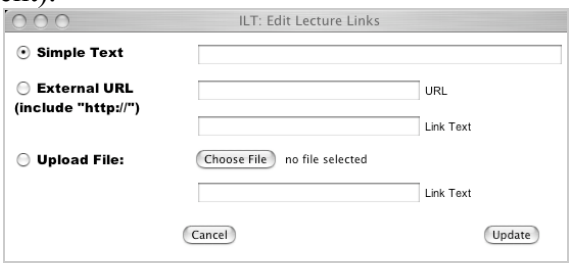


Figure: add handout window [with wrong title]

Uploading a file may take some time depending on its size.

Edit Description

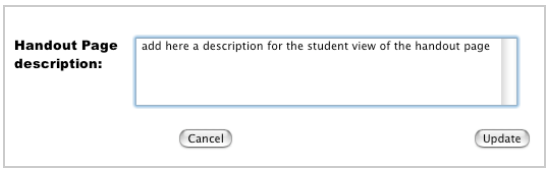


Figure: Edit handout description.

You can edit the description of the handouts module page. It will appear as a header at the student view (see red arrow the figure below).

Student View

Students have access to the handouts page from the menu at the top blue margin. Students will see the list of handouts grouped by category. The "description" edited in the handouts module appears as introductory text on this page. The linked handouts appear in blue.

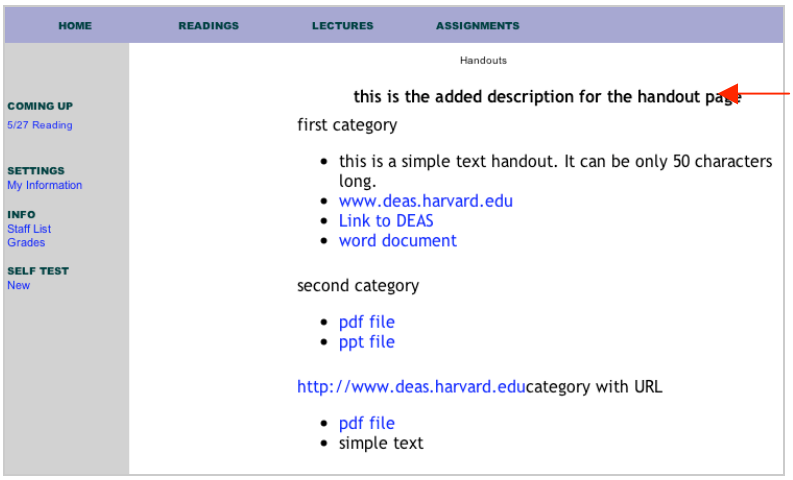


Figure: Student view of handouts.
Red arrow indicates the description you can add through the "edit description" tool.

Staff

The Staff module allows the addition of instructors and other staff to the course. Any staff member will have access to the information of the course through the ILT. The course will be automatically added to their Account homepage. The figure below illustrates how the "Courses" looks to a member of the staff of other two courses. The user is instructor in the first course, co-instructor in the second course and a member of the teaching staff ("Other staff") in the third course.

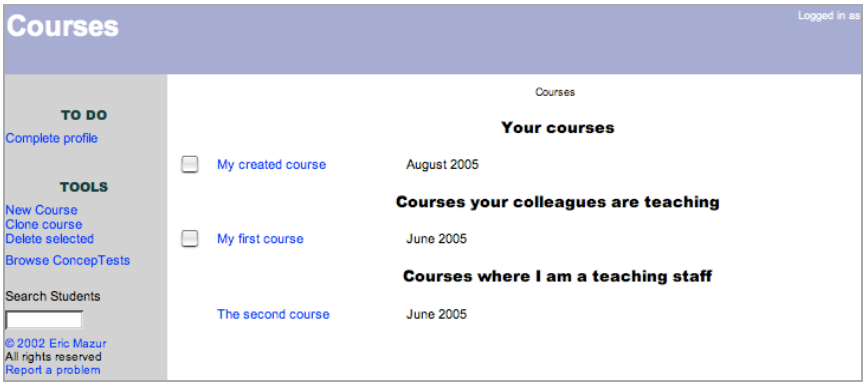


Figure: Courses website of an ILT with different staff functions in different courses.

Members of staff can participate in forums, grade assignments and reading assignments, assign PRS units, be assigned to sections, etc. However, not all members of the staff have the same permissions in a course. While all instructors have full access to all the information of the course with full read and write permissions, only instructors and co-instructors can change settings and have reading access to the students email messages or reading FAQ responses.

Adding staff

Add the Staff Module by clicking the corresponding check box at the on the "Course "Homepage. The module will be added at the end of the "Course" website.

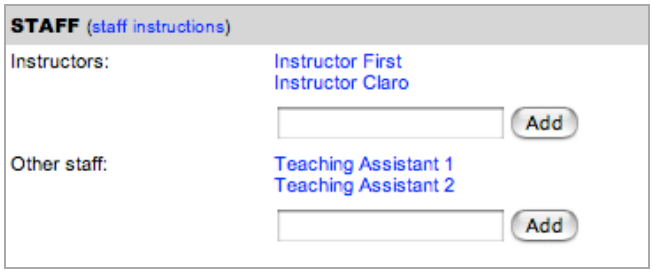


Figure: Staff Module at the Course Homepage.

All staff members must be registered users Add staff to your course by entering their user e-mail in the appropriate field. Once they are added, you can click on their names to edit

their information, set their "Visibility" on the student web site, or remove them from your course. You cannot delete a staff member once added.

Staff Information

Click on the name of the staff member whose information you want to edit. You will be directed to the Staff Information page (see figure below). Add information as appropriate. Students will have access to the list of staff and their information on the student's course page. You can decide which staff member will be "visible, i.e., whether his/her information are visible on the student website.

By default, the information shows the email of the account. Overwrite the address with the email you want to use for the course. Images of the staff member can be uploaded (use .eps format).

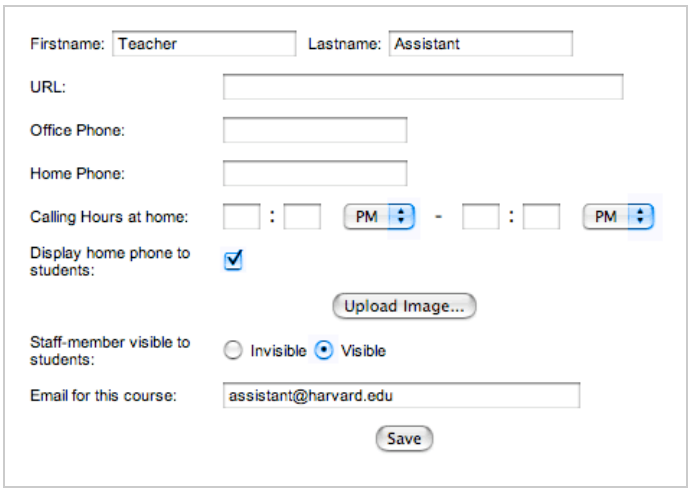


Figure: Staff Information Page

Add to section

Staff members can be associated with a section using the tool "Add to section" on the staff member information page. The window will offer the list of sections and laboratories you have setup in the "Sections" module. Select if the member is a primary or secondary staff for the section. Primary is the TFs who is primarily responsible for a section or lab (see "Student Manual"). Click on Save. You can edit this information at any time by going back to this page.

This information will be added to the section information page and to the student's course page.

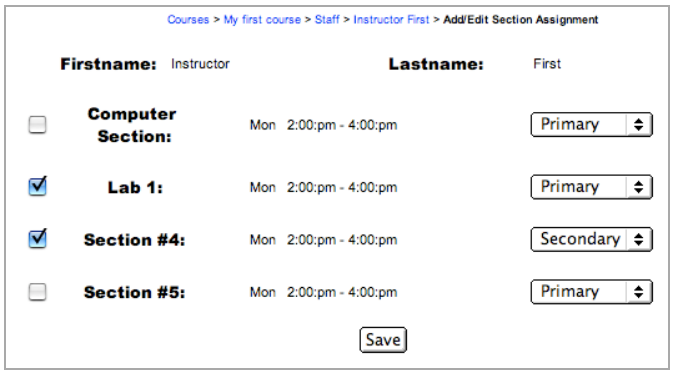


Figure: Assigning Section to a staff member

Add Office Hours

On the Staff member information page, use the tool "Add office hours" to setup the location, day and time of the staff member's office hours. Fill in the information and click "update". You can also delete the office hours you select. The information will appear in the students' page as part of the staff member information (see "student view" section on this chapter).

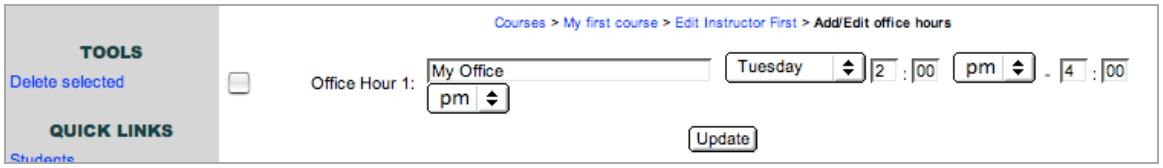


Figure: Add/edit office hours to staff member

The staff member information page will be updated as shown in the picture below.

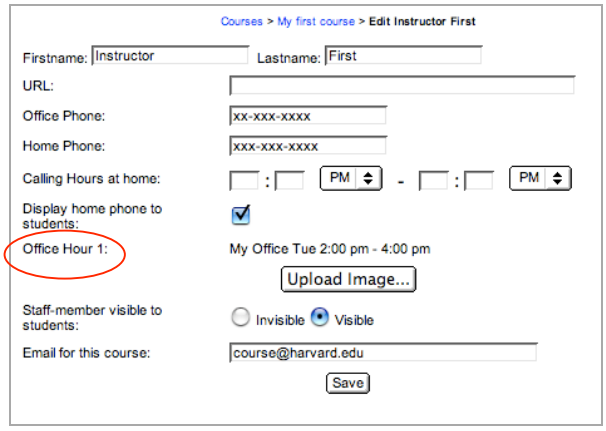


Figure: Staff Member Information page with office hours.

Note: ILT does not work with the times submitted in this page, they can be set in local time zone, despite the location of the server.

Student view

Students can access the information of each visible staff in the course website (red circled in figure below).

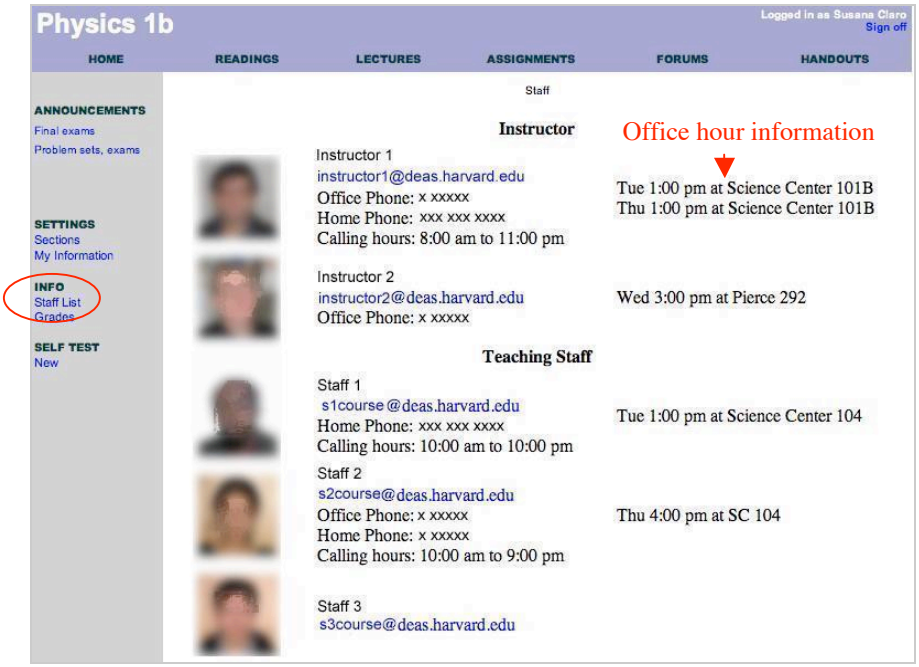


Figure: Student view of Staff List
Red circle shows the “Staff List” link.

Sections

The ILT toolkit offers the possibility for administrating sections and /or laboratories. The Sections module allows you to determine the maximum capacity of students for each section, assign the primary and secondary staff for it, and set the time and day that the section is being held.
Through the student's website, students can register for the section that best suits their preferences. In a first come first served basis, the system will fill the sections until their maximum capacity.

Enabling the Section Module

To create sections, add the correspondent module in the list on the ILT course website.

A section management tool will appear on the course website (see figure below). It will show the number of sections and laboratories scheduled. The information in parenthesis display the number of students registered for sections compared to the total number of students registered in the course.

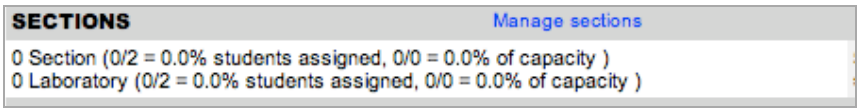


Figure: "Sections" module.

Once the Section Module is created, a new link "Sections" appears on the side panel in the "Quick Links" menu. This is a link to the "Sections" module. The pull-down menu allows you to access the settings for a particular section.

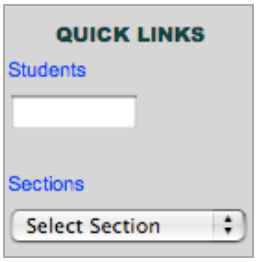


Figure: "Sections" link and pull-down menu for particular sections at the side panel.

To access the Sections module click on "Sections" or on "Manage sections" in the "Section" module at the course website.

Creating a Section

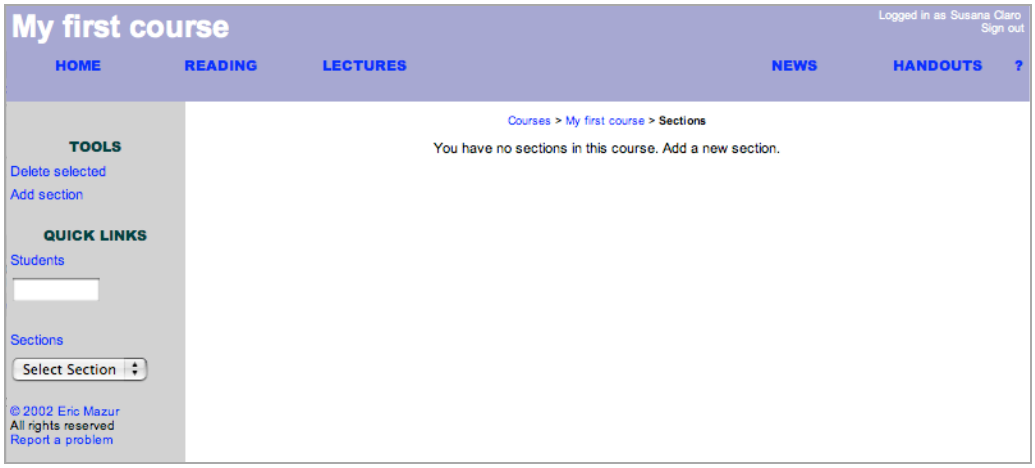


Figure: Sections module page, first visit.

In your first visit to the Sections module, you will have an empty list of sections (see figure above). To add a section, use the tool "Add section".

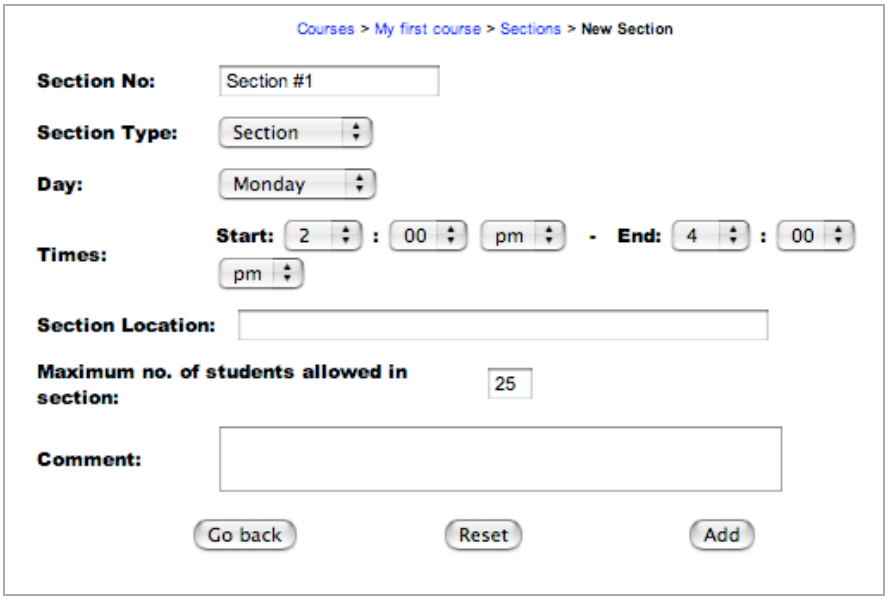


Figure: New Section form

The "Add section" tool leads you to the "New Section" form. Complete the required information as follows:

Section No: This is the name of the section. You can change the default name as appropriate.

Section Type: Sections can be of two types: "sections" or "laboratories". Sections of each type are grouped separately but their functionality and features are the

same. Having two types of sections allows the student to register to each category separately.

Day and Time: Select the day and time that the sections will be held weekly. This information will be shown to the students. You can change this information at any time. Currently, the ILT does not allow accommodating more than one section of each type per week.

Section Location: Enter the location where the section is held. This information can be changed at any time.

Maximum no. of students: The system allows students to register for this section until its maximum capacity, as defined here, is reached. You can modify this number at any time. The instructor can register more students with a particular section then defined here (see below).

Comment: Comments are invisible to students and can be used for internal information.

Sections module page

Once all sections are set, the "Sections" homepage will show the list of sections. Sections of different types are listed separately.

To delete a section, select the checkbox and use the "Delete" tool. Students from this section will belong to no section once it is deleted.

Section Information

To edit information, click on the corresponding particular section in the "Section" module or use the quick link with the pull down menu at the side panel. You will be directed to a page containing all settings for this section (see figure below).

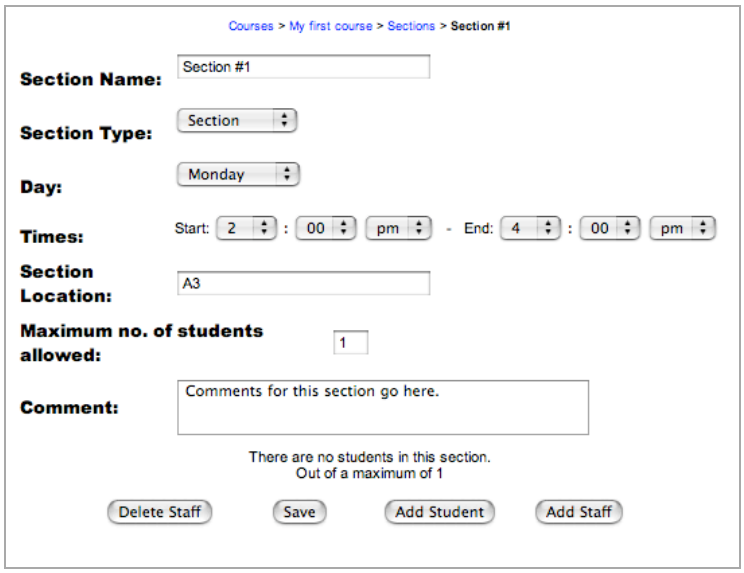


Figure: Section #1 information page

Note: The add-student button is not yet implemented. Students can be moved to another section from the face book (see chapter "Face Book").

Adding Staff:

Click on the Add Staff-button and select the section staff by clicking the check box. You can select more than one staff and define the order as described in the "Staff" section.

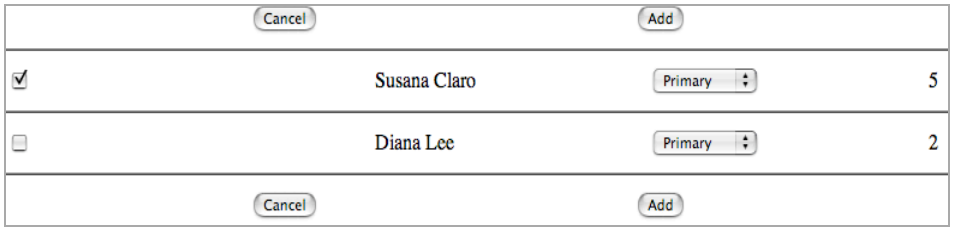


Figure: Add Staff to section.

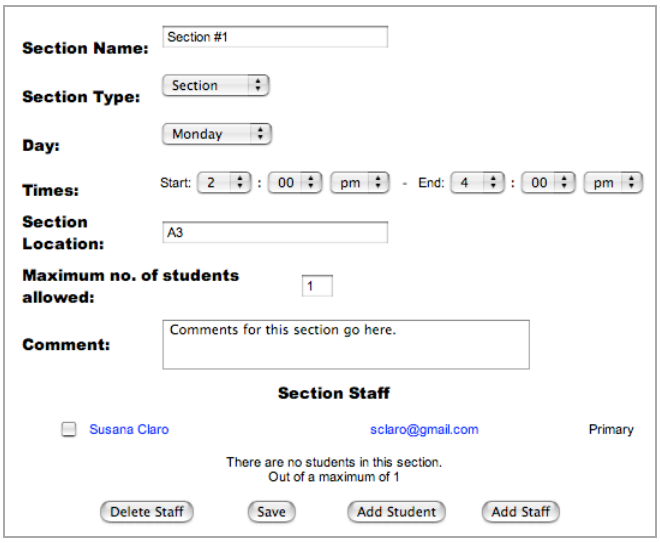


Figure: Section information page with assigned staff.

Student Registration to sections

The ILT toolkit helps you to manage the distribution of students among sections. Once you have scheduled all your sections, they appear on the student registration website. Student can pick their section until all places are filled (see figure below). Only the instructor can allocate additional students to full sections (see last section of this chapter). Students need to contact the instructor to request transfer.

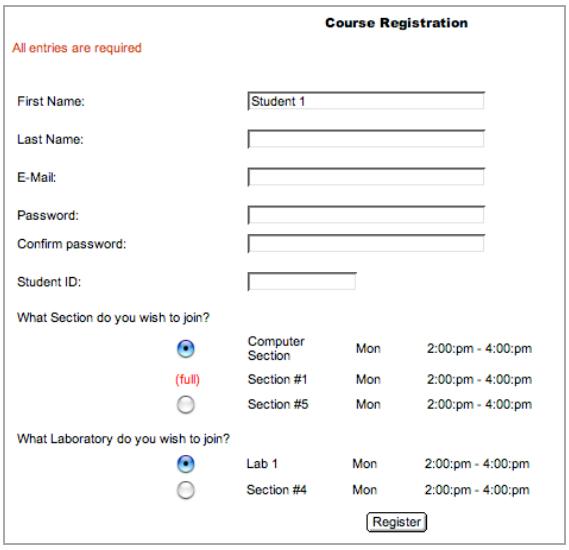


Figure: Students Enrollment Page with two different types of sections.

Registered students will have access to the list of sections through the course webpage by clicking on "Sections" at the side panel in the "Settings" menu (see red circle in figure below).

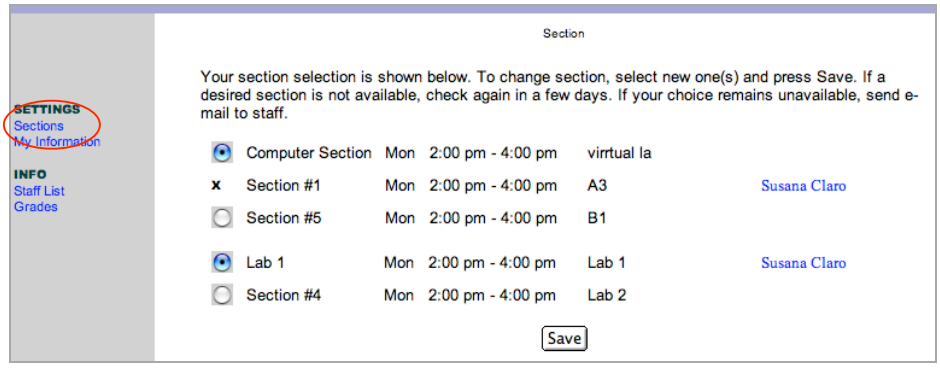


Figure: Student view of "Sections" page.

Students can change their choice of section at any time as long as places are available. An "x" next to the section name indicates full sections.

The number of students registered in each section can be viewed in the "Section" module on the course website as well as on the "Manage Section" website accessible from the side panel or the "Manage section" link. You can view all students registered with one section by clicking on the "No." link on the "Section" website (see red circle in figure below).

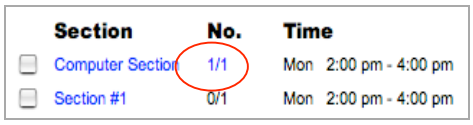


Figure: "Manage Sections" website.

Section information can be edited on the "Section Details" page (see figure below), which can be accessed by clicking on the section name

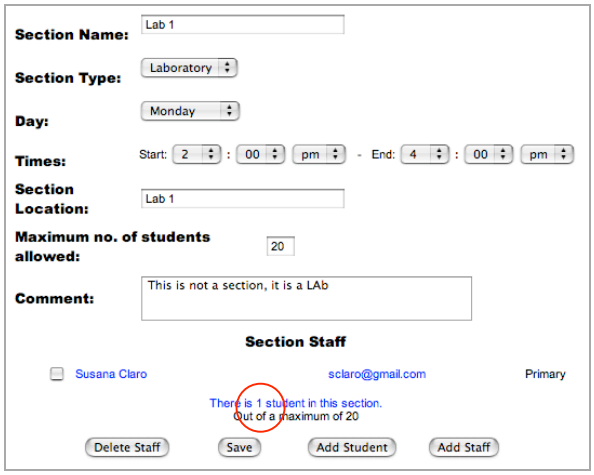


Figure: "Section Details" page. Red circle shows number of students registered.

Moving a student to a different section using the Face Book:

Course Staff can change the sections where the students belong at any time from the student information page (see Face Book chapter). Click on the section link you want to change. Select the destination section from the list in the pop-up window (red circle in figure below). Students can also be moved to full sections.

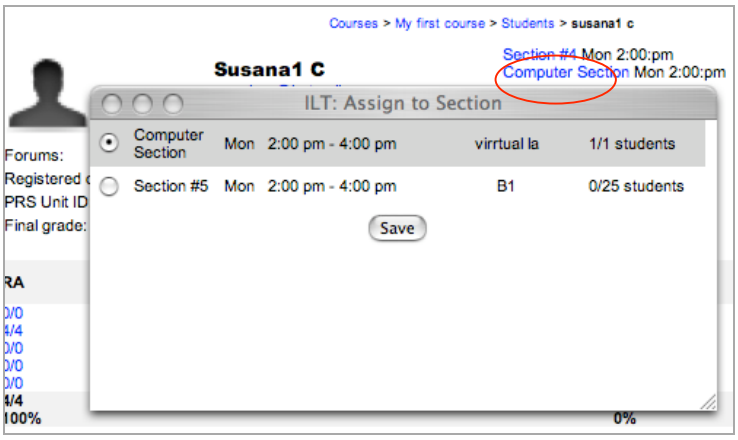


Figure: Student Information page (Face Book).
Red circle points the link to change the section of the student.
The pop-up window with the list of sections available will appear.

E-MAIL

The ILT has several features to send e-mail messages to the students and staff, reply to reading assignment's answers, manage your own e-mail account and track the e-mails that have been sent to each student. If you want to send e-mails to students and reply to reading assignments, you do not need to setup the E-Mail " module in the ILT.

In order to use the e-mail module efficiently, we recommend the creation of course e-mail for each member of the teaching staff.

E-mail

The E-mail module manages your e-mail account once you have set up the connection.
To enable the e-mail module select it from the Modules list in the Course Homepage.
A new menu called "E-Mail" will appear at the side panel of the page.

Figure: E-Mail menu. Access to the E-Mail module

Manage e-mail connection

The first step to be done is to setup the email connection. Click in the corresponding link and fill in the information needed (figure below).

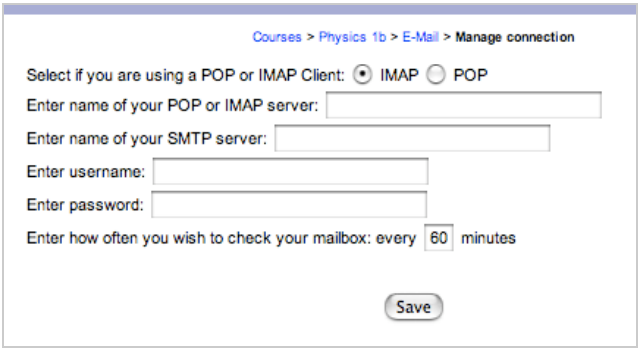


Figure: Manage E-mail Connection.

Submit the information of the type of email client (IMAP or POP account), the incoming Mail Server (the POP or IMAP server), outgoing Mail Server (the SMTP server), the username and password of that account, and the frequency you want the ILT to check this account.

In order to connect your email account, you may need the cooperation of the IT

department of your school. Different protocols on the mail server may disable this functionality.

Checking e-mail

To access the list of your e-mails, click on the link "Email" (see next figure). The number behind the link corresponds to the number of new and unprocessed e-mails.

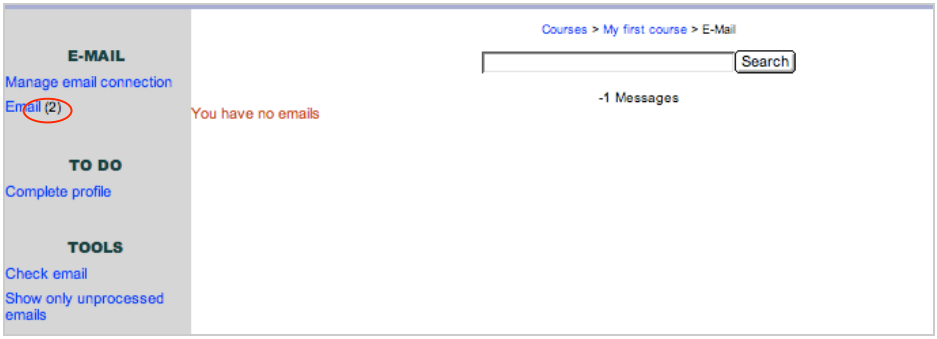


Figure: E-Mail module, first visit.

You can use the tool "Check email" in the "Tools" menu to manually retrieve new emails from your account.

The ILT email list shows information of the sender, subject, date received and the process status (in the column "Replied"). The system will automatically add the picture ID and the name if the sender is registered with the ILT. If, the sender is not registered, the e-mail is still displayed. The list of e-mails is ordered as follows: unprocessed and new e-mails are at the top, followed by e-mails replied to, followed by e-mails transferred to other members of the staff, followed by e-mails not replied to.

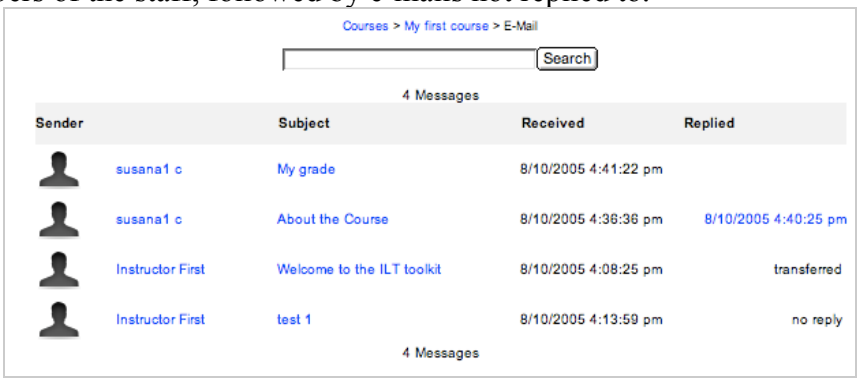


Figure: E-mail list containing 4 messages with different status.

Search

You can search emails by typing a word and click search. The system will select all emails that match this word in any element of the mail. Click the X-button to return to the complete list of emails.

Show only unprocessed email / show all email

You can use the tool "show only unprocessed email" to hide all the emails that you have

processed. To get all emails back in the list click the tool “show all email”.

Reading and processing emails

To check and process an email, click on the sender name or on the subject link. A pop-up window appears (see figure below).

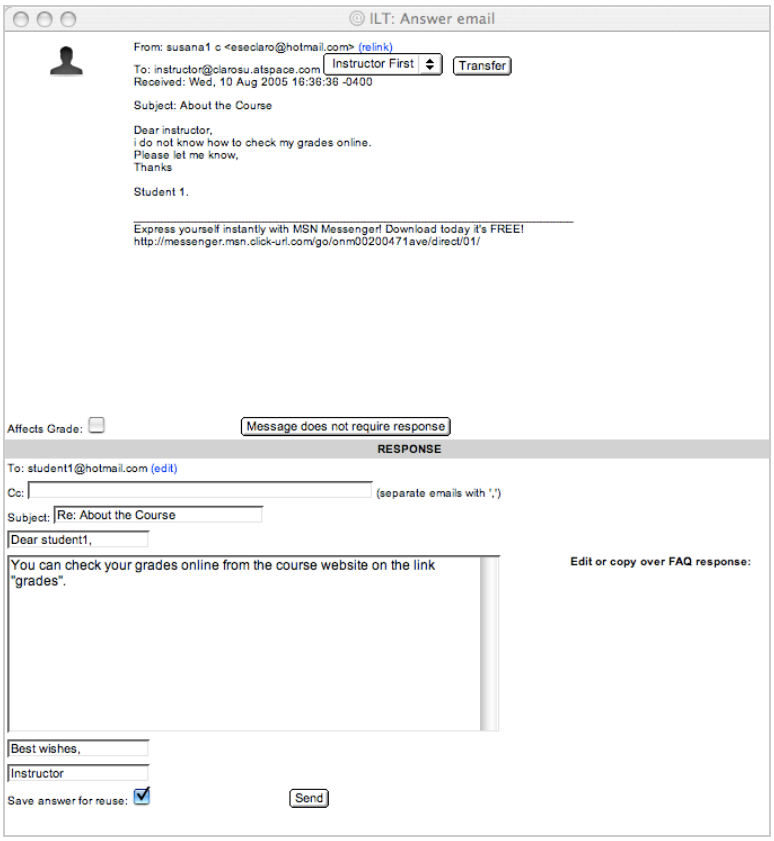


Figure: Answer email window

The window is divided into two parts. The upper part contains the sender, the receivers, the subject and content of the message. The lower part contains a reply form with default subject, address and greeting.

To process an email you have three options:

- **Transfer email**: select the staff member from the pull-down menu to which the e-mail should be transferred to and click the transfer-button. Make sure that this member has setup his/her e-mail connection correctly.

- **No reply required**: Press the button “Message does not require response” to process the email without replying and it will appear with the comment “no reply” in the e-mail list.

- **Reply**: Enter a reply and click the send button. You can edit any of the text fields as appropriate.

Other features:

- **Relink sender**: next to the senders name there is a link to "relink" the sender with a different participant of the ILT. Enter an email that is previously registered on the ILT and the email will be relinked to this user.
-
- **"Affects Grade" box:** Check the box "Affects Grade" and the content of the email will appear as "Relevant Email" at the bottom of the student's face book.

- **Save answer for reuse:** Check this box to save the answer as a FAQ to be used for later responses. After the email is sent, a window will open asking you to edit the response and to save it. A link with the FAQ title will appear on the right of the body text window of the "Answer e-mail" window.

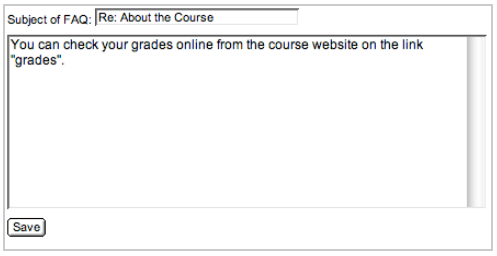


Figure: Add FAQ entry

- **FAQ response list**: Use any of these responses that you have previously saved to fill the content of the message you will send. Just click on the arrow to transfer the content to the body message or edit it by clicking on the title.
-

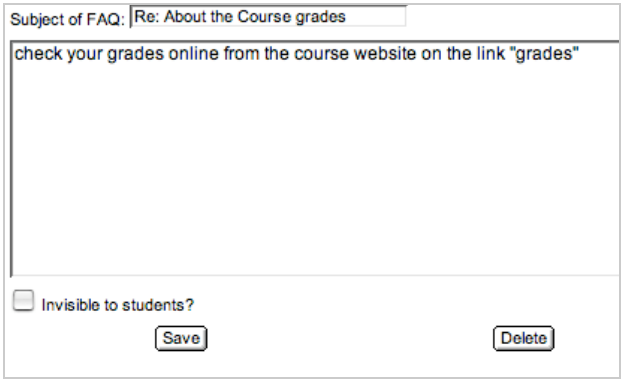


Figure: Edit FAQ

All emails received and sent from this page are stored linked to the face book of the respective student (see the chapter "Face Book").

BQ Interactive Classroom

The BQ software has been developed by William F. Junkin (Eckerd College) and Brian Smith (Erskine College). Please note that the ILT developer team is not actively involved in the development of this software. Any comments and recommendations should be directed to the BQ developer team. The BQ User Manual can be obtained from Prof. Junkin (junkinwf@eckerd.edu).

The BQ software allows users to poll students using a broad variety of response devices, like laptops, PDAs, cell phones, IR and RF transmitters . For details, please consult the BQ User Manual.

Figure: PRS IR receiver and transmitters

In order to identify responses with individual students, it is necessary to link the transmitter unit ID with the student. The BQ module of the ILT enables students to register the unit ID with their account and instructors to view a list of students and corresponding unit ID. Students using web-based devices to respond do not need to register a unit.

Enabling the BQ module

To add the BQ module, select the BQ option in the modules list on the Course Homepage. Click the Set Modules-button. The information of this module will be added at the end of the page.

Figure: BQ module on the Course Homepage

BQ Settings

Click on the "Settings" link to view and change the way the ILT interacts with the BQ program.

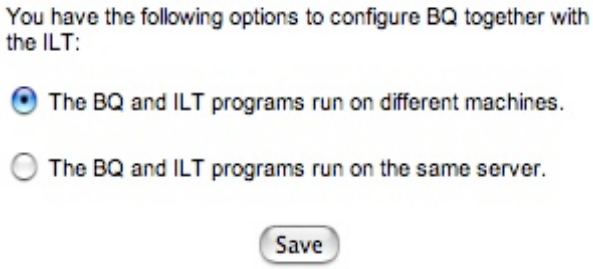


Figure: BQ settings.

There are two options to run the ILT together with the BQ program.:

- the ILT and the BQ program run on different machines; while the ILT should only on webservers accessible at all times, BQ can be run off laptops, classroom desktops or dedicated servers
- the ILT and BQ program run on the same server; this configuration allows a more seamless back- and forward navigation between the two programs

Note: Since the ILT program only runs off the central DEAS server at Harvard right now, we recommend to use the second version only if you use web-based devices for polling in your class. This requirement may change if you run the ILT on a local machine at your institution.

List transmitters

To access to the information and edit it, click on the link "List Transmitters".
You will have a list of all registered students and the corresponding PRS unit ID

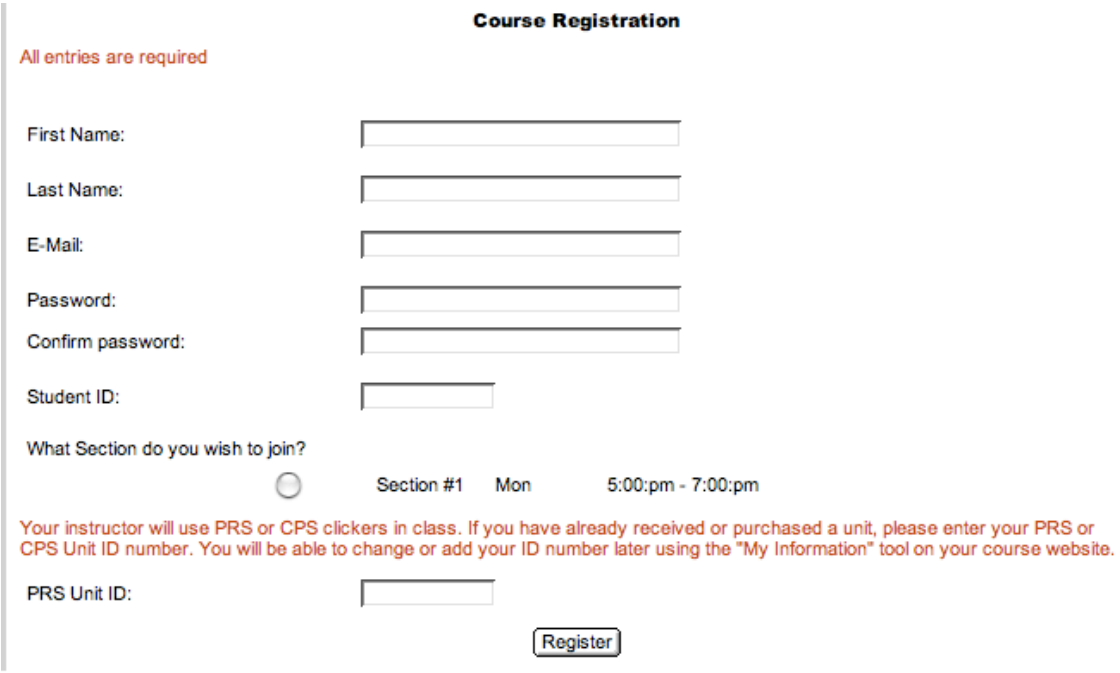
Figure: List transmitters.

Delete: To delete an entry from this list, select it and click the "Delete selected" link on the side toolbar.

Export data: To export the data into a CVS file, click the "Export data" link on the side panel.

Student view

If you have set the PRS module, students will see a text field at the bottom of the registration page allowing them to enter their PRS unit ID (see figure below).



Students can add or change their PRS unit ID at any time using the "My Information" page on the student website.

The Face Book

To help improve the interaction between students and instructor, all student entries are coupled to a so-called face book. Anywhere a student's name appears in the ILT, it is accompanied by the student's picture (or a placeholder), serving as a portal to the face book. This page shows the progress of the student in all aspects of the course. This novel tool helps the instructor track students' progress, identify students who might be struggling in the course, communicate with students, and maintain a complete and accurate record. The facebook is particularly beneficial in large classes, where students often tend to remain anonymous.

A face book is automatically created for each student registered with the course.

Access to the Face Book: Students Quick Link

There are many ways to access the Face Book. As mentioned above, each time a picture associated with a student is displayed it serves a portal to his/her face book. You can also obtain quick access by entering the student's name in the text field in the "Quick Link" menu on the side panel. If you are unsure about the student's name you can do a partial or full search using the same tool. Alternatively, you can perform a search using the "Students" link in the "Quick Link" menu. This link directs you to the page shown in the next figure.

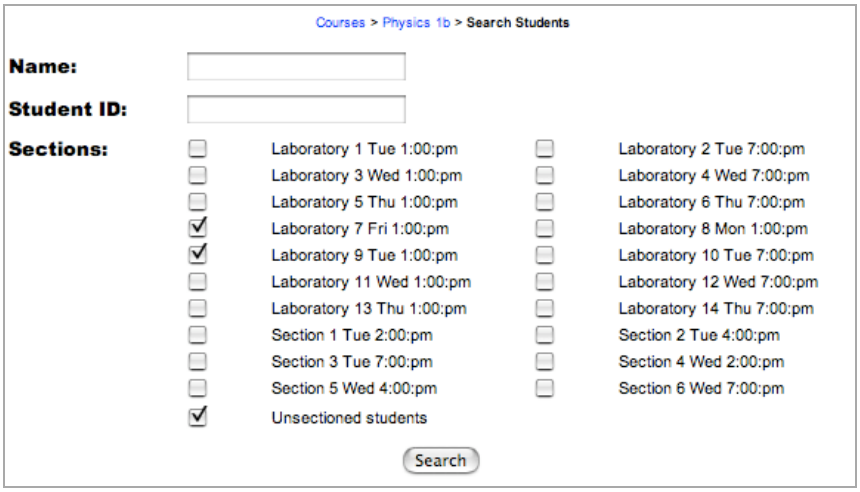


Figure: Search Students Page.

Here you can specify the search using their name and/or student ID and/or section the student is registered with.

After performing a search you will be presented with a list of student matching the search.
The search will yield a list of all students (see figure below). Clicking on any picture directs you to the face book of the particular student.

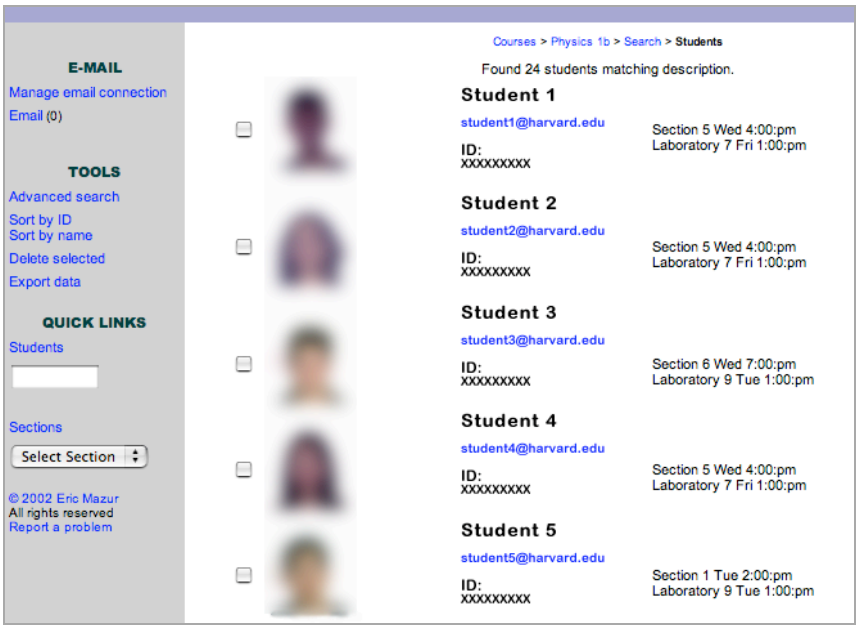


Figure: List of student matching the search criteria shown in the previous figure.

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There are several ways to narrow your search results from the initial results displayed:

- **"Advanced Search":** You may begin a new search with "Advanced Search".
- **Sort by ID/Sort by Name:** Exports data into a CVS file. The students are sorted either by name or student ID.
- **Delete Selected:** You may select individual students by clicking in the box that appears to the left of their picture. By clicking the "Delete Selected" link you can remove a student from the course.
- **Export Data:** This tool will download a CVS file with the detailed info of all the students in the list. The list of students will be sorted in alphabetical order by their last names.

From this page you may also send an email to any student listed by clicking on their email address as it appears below their name. You may also view detailed information about the student by clicking on their picture.

Face book

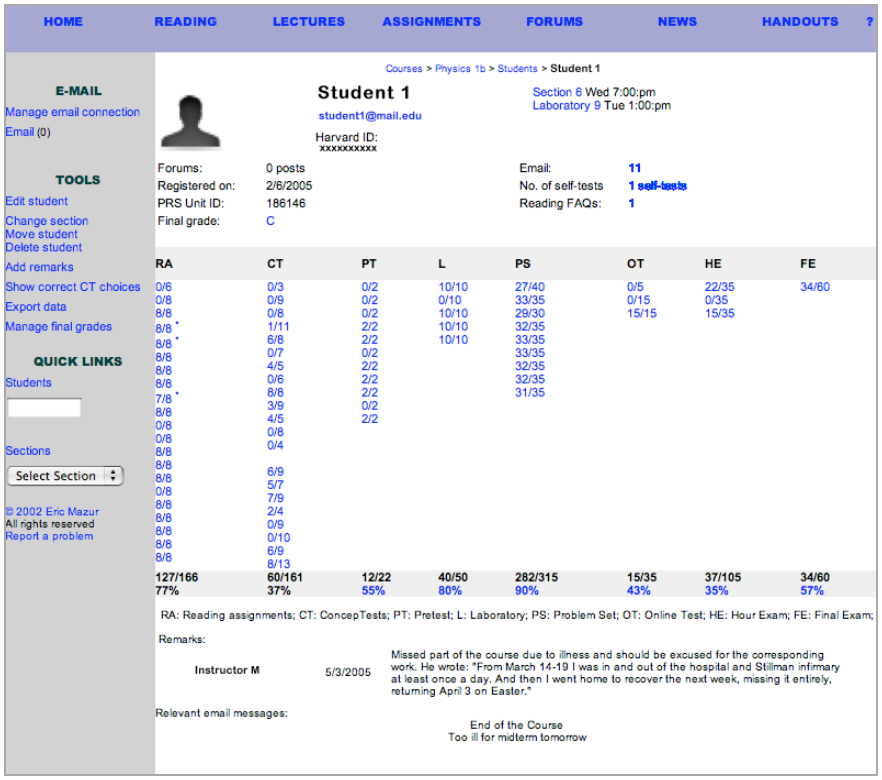


Figure: Face book.

A complete face book after the completion of a course in shown in the figure above. The displays all of the information you have gathered about a student. The elements that appear in blue are direct links to more detailed information. For the purposes of this manual, the information on the face book page has been divided in four parts.

First part:

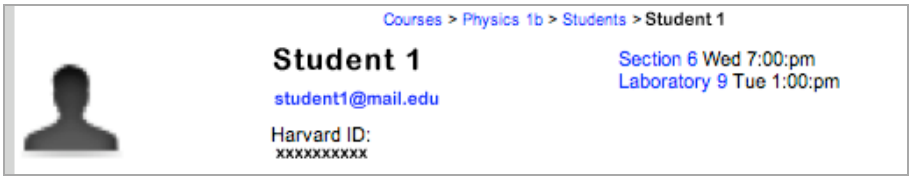


Figure: First information listed at the Student 1's Info page.

Name and ID: First and last name, student and picture (if available) are displayed at the left of the first part.

Section: The sessions of the different section types the student is registered with. You may click on these links to change the section or laboratory to move the student into a different session.
E-mail address: You can send e-mail to this student by clicking on this link.

Second part:

Forums:	0 posts	Email:	11
Registered on:	2/6/2005	No. of self-tests	1 self-tests
PRS Unit ID:	186146	Reading FAQs:	1
Final grade:	C		

Figure: Second part of the face book.

The second part contains a brief listing of all the facts concerning the students' work in the course.

- Number of forum postings he/she has made
- Date of registration
- PRS Unit ID (if applicable)
- Final Grade
- Number of emails exchanged with the student
- Number of self-test the student has completed
- Reading FAQs

Forums: In the above example, Student 1 has not posted any comments in a course forum. Had he posted any comments, you would have access to those comments by clicking on this item (the figure below shows how this information is displayed).

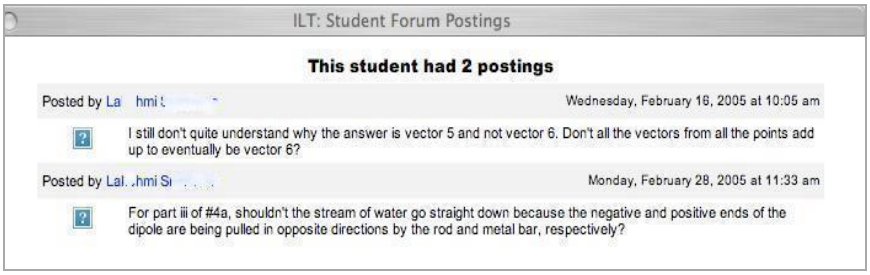
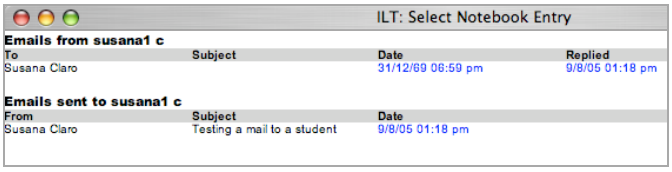


Figure: Student Forum postings.
Student has posted two comments during the course.

Email: By clicking on the number of e-mails you can access a window containing a record of all e-mail exchanges any member of staff had with this student (see next figure).



Only instructors have access to this page.

Self-Test: You may access the student's self-test results.

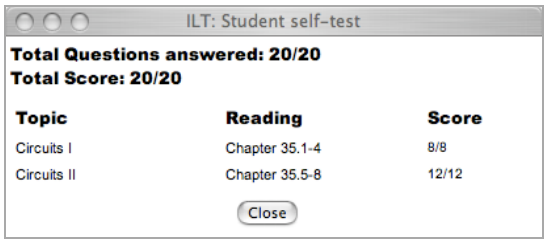
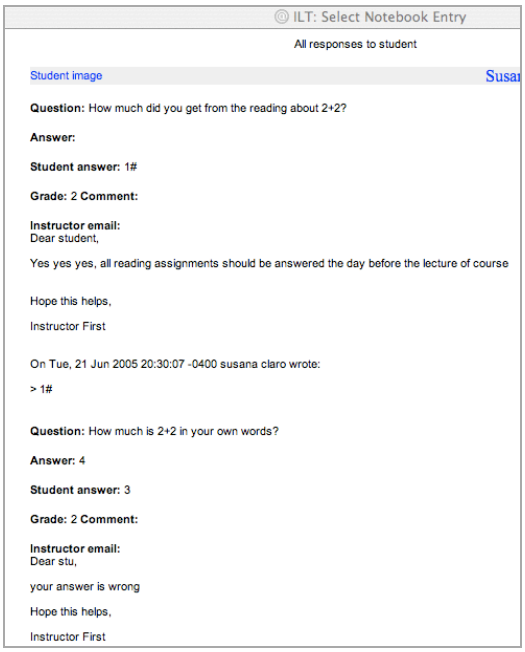


Figure: Self-test results

Reading FAQs: This link provides you with all reading assignments of this student and your responses you have saved as FAQs



Final grade: Once the final grade is entered, it can be updated by clicking on the letter.

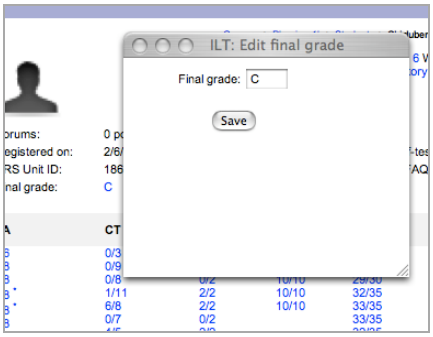
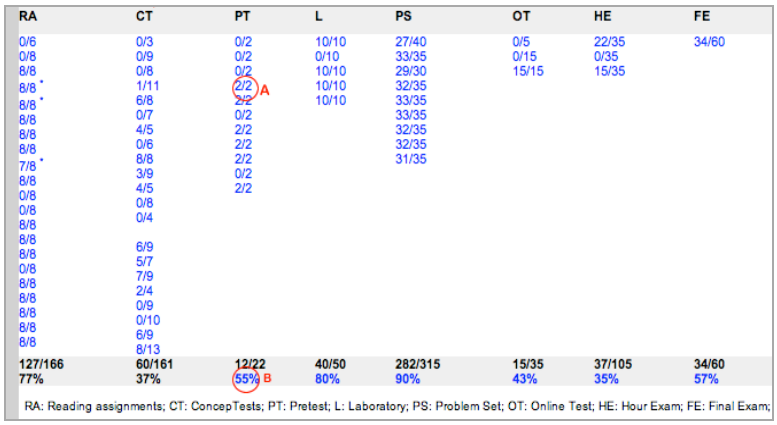


Figure: Edit final grade.

Third part:



RA	CT	PT	L	PS	OT	HE	FE
0/6	0/3	0/2	10/10	27/40	0/5	22/35	34/60
0/8	0/9	0/2	0/10	33/35	0/15	0/35	
8/8	0/8	0/2	10/10	29/30	15/15	15/35	
8/8 *	1/11	2/2 A	10/10	32/35			
8/8 *	6/8	2/2	10/10	33/35			
8/8	0/7	0/2		33/35			
8/8	4/5	2/2		32/35			
8/8	0/6	2/2		32/35			
7/8 *	8/8	2/2		31/35			
8/8	3/9	0/2					
0/8	4/5	2/2					
0/8	0/8						
8/8	0/4						
8/8	6/9						
8/8	5/7						
0/8	7/9						
8/8	2/4						
8/8	0/9						
8/8	0/10						
8/8	6/9						
8/8	8/13						
127/166	60/161	12/22	40/50	282/315	15/35	37/105	34/60
77%	37%	55% B	80%	90%	43%	35%	57%

RA: Reading assignments; CT: ConcepTests; PT: Pretest; L: Laboratory; PS: Problem Set; OT: Online Test; HE: Hour Exam; FE: Final Exam;

Figure: Third part of the face book.

The third part contains the complete record of all assignments graded through the ILT. Reading assignments (RA) are automatically graded with 2 points per answered question. Please note that RA grades only appear on the student website after you have confirmed the grades for all questions on the corresponding grading page (see chapter "Reading Assignments").

ConcepTests (CTs) are also automatically graded. The corresponding column appears once the lecture module is selected. The first number is the number of in-class responses, the second number the total number of questions posed in class (with pre- and post-discussion CTs counted separately). If the student uses IR/RF transmitter to enter his/her answer, it is important that the unit ID number is registered with the ILT. **Note: Currently this feature only works with the PRS response system as described in the previous chapter. With the completion of the LT3 integration, it will also work for both CPS and Digital C transmitter as well as laptops, web-based cell phones and PDAs. We recommend using this feature only once the LT3 integration is complete, unless you work exclusively with the PRS system.**

The other columns correspond to the different types of assignments defined in the "Assignment" module. In the figure above, those types are: pre-tests (PT), laboratories (L), problem sets (PS), Online Test (OT), Hour Exam (HE), and final exam (FE)). The student's performance on each assignment is shown as the ratio between the individual number of points and the maximum number of points. The sum of all points earned for a particular type of assignment and the corresponding percentage of the maximum points is shown at the bottom of the column. You can click on any particular grade to access the course statistics for that particular assignment (this feature is described in more detail in the "Statistics" section of this chapter).

Asterisks indicate that a comment is associated with this specific grade of the student.

Fourth part:

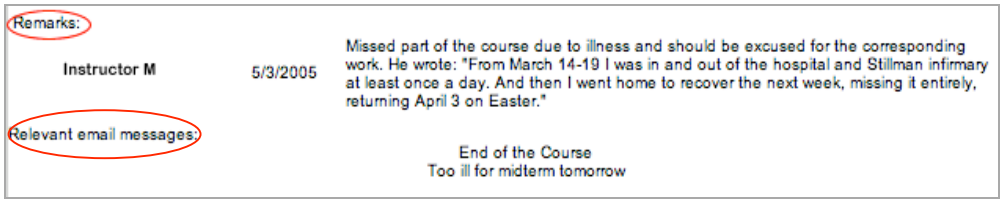


Figure: Fourth part of information available at the Student Info page

The last part of the page displays the content of the relevant email (the corresponding tool is described in the chapter "E-mail"). Any member of the teaching staff may post a "remark" by using the tool "Add remarks" on the side panel.

Statistics

From the face book you have access to the course statistics of each assignment, reading assignment or concept tests of the course. The statistics show the relative position of the particular student in the grade distribution of the whole class (see figure below).

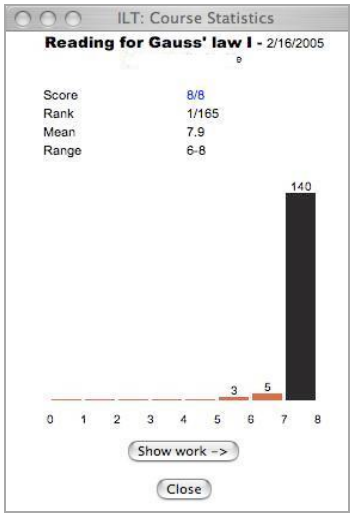


Figure: Statistics for Reading Assignment

The window shows the title and date of the lecture paired with that reading assignment. The values mapped are as follows:

Score: This is the ratio of point earned to maximum points available and represents the students grade on the assignment
Rank: This compares the student's ranking.
Mean: This number shows the average score in the class (students with grade 0 are not included in the calculation).
Range: Lowest and highest grade in class for a given assignment.
Graph: Grade distribution. A black bar highlights the relative position of the particular student.

The functionality of the course statistics slightly differs depending on the type of assignment

Reading assignment:

The "Show work" button is linked to a window showing the complete record of question, answer, grade score and relative position of the student in the class' grade distribution (see figure below).

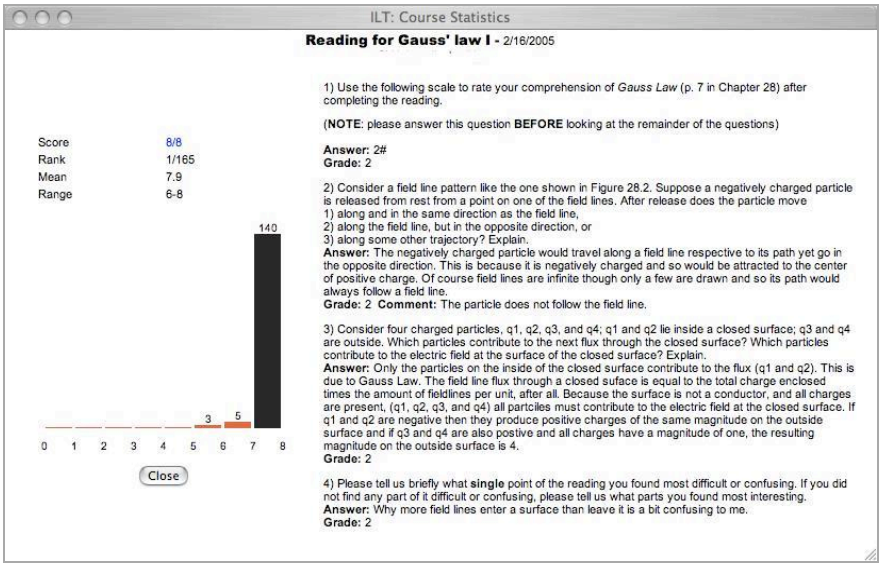


Figure: "Show work" window for reading assignment.

Clicking on the score leads to a window allowing you to edit the RA grades of the student (see next figure).

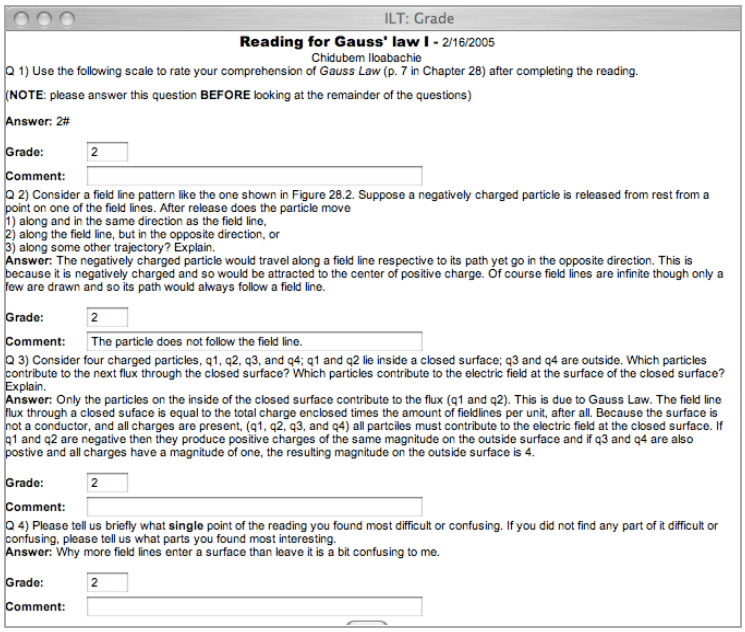


Figure: Edit RA grades.

ConceptTests:

The statistics window displays the same information as for the reading assignments. There is no "Show Work" button.

Other Assignments:

Each assignment will display different statistics depending on the grading applied. For assignments without more than one question (points per question=total points) the "Show work" button is not displayed (this applies, for example to pretests).

For assignments containing more than one question, the "Show Work" button will provide you with a detailed, question-by-question, grade distribution (see next figure). **Due to the significant computational effort, the display of these data usually takes some time.**

You may edit the grades of the particular student by clicking the score of the statistics page.

Tools available on the Student's Info Page

Edit Student Tool

Clicking on students allows you to update the student's personal information (ID number, first and last names). Click the save button to make changes. Email address cannot be edited.

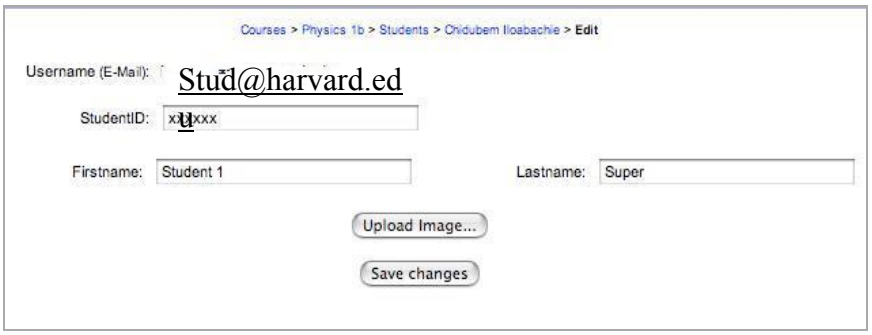


Figure: Edit Student information

You can upload an image for the student from this page.

Change Section

This link is currently not active.

Move Student

This tool allows you to move a student to another course available in your account.

Attention: The student's responses, scores, etc. for reading assignments, lecture responses and assignments will be copied and sent to the new course and the student will be re-associated with the new course. It will delete all other course related information for the student. Moreover, in each assignment this tool will copy only the scores and student responses of questions in the order the questions are in the assignment. This means that the student responses in the new course may have nothing to do with the question. This may affect the grade and ConcepTest gain statistics.

Use this tool with extreme caution.

Add Remarks

"Add Remarks" allows you to post a comment to the student's page. Type the comment in the text field and click the save-button. The system will add your name and the date posted.

Warning: remarks cannot be deleted.

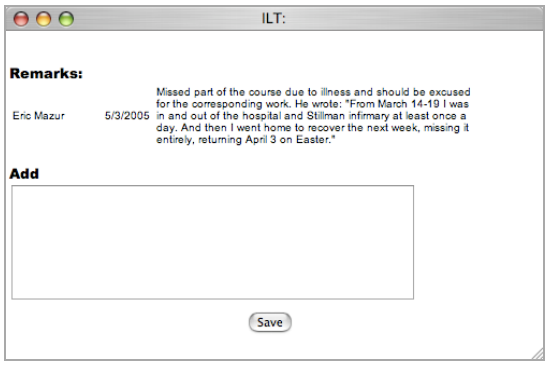


Figure: Add remark

Show correct CT (Concept Test) choices

Use this tool to display the number of correct responses the student gave during a lecture. The grade display will change from "total answered CT/total CT of the lecture" to "correct answers /total answered CT/total

To undo this operation click "Don't show correct CT choices" tool.

Export Data

Download the student data in to a CSV file format by clicking on the tool "Export data".

Manage Final Grades

You can manage the final grades of all the students using the "Manage Final Grades" link that appears on the side panel.
The link directs you to a list of all the students registered in the course, sorted in alphabetical order. The last column on the right displays the final grade of each student.
Final grades can be edited as follows:

- Clicking on the letter grade displayed in the face book or the "Manage Final Grades" page
- Using the "Export data" link to download all data into a cvs file. You can then edit the grades in the CVS file and upload it back to the ILT using the "Import Data" tool (see figure below). This tool also allows you to enter all final grades manually. We recommend to always using the "Export data" feature first to make sure that the CVS file is in the correct format. T

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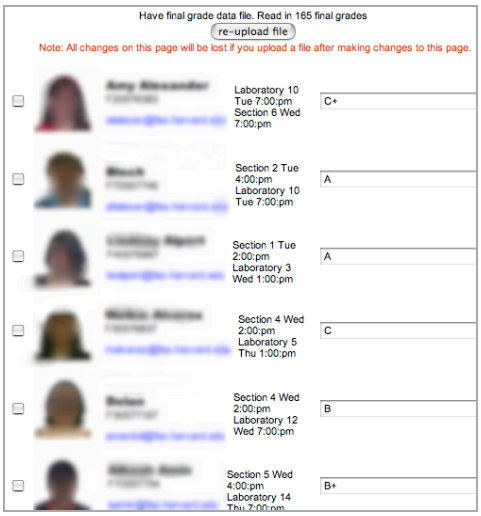


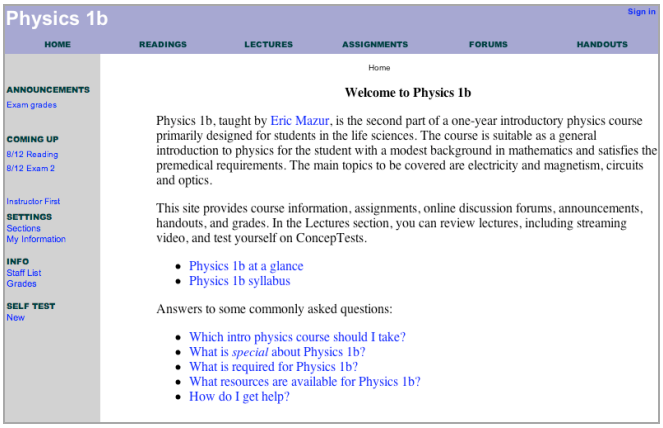
Figure: “Import Data” page for Final Grades.

Student Manual

Welcome to the course website! This manual is devised to access all information and features as quickly as possible. Content and functionality of this page may vary depending on the specific settings of your course. We hope this site provides you with the resources you need to perform successfully. Good luck!

Course Website

The URL of the course website will be provided to you by the instructor. It's content and functionality depends on the settings your instructor has set. Below is an example of the Harvard Physics 1b course website.



Course Homepage

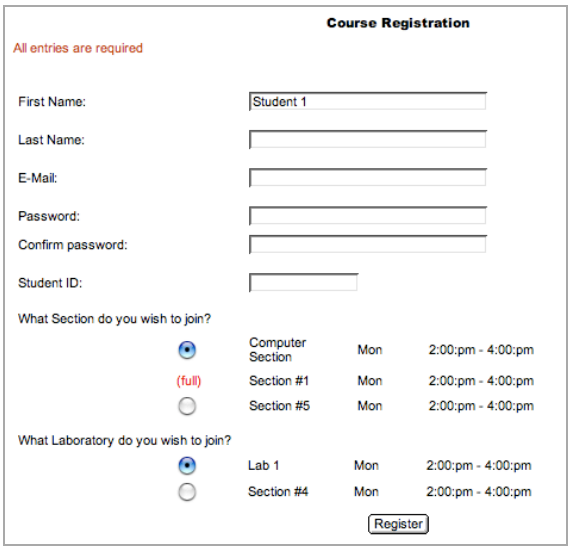
Not all of these modules displayed may be available in your course.

Only enrolled students have full access to the course website. Unregistered students may access the homepage, lecture content, handouts and see announcements.

Enrollment

In order to have access to the full course website you need to be enrolled.
You can enroll in the course with the URL provided by your instructor. If enrollment is allowed from the login page, click on "Sign in" in the upper right corner of the window and use the link "Not registered? Enroll" shown in the figure below.

Login page.



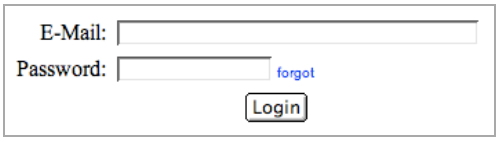
Enrollment page with sections

The figure above shows the default fields in the enrollment page. Your enrollment page may have different items. Enter your first and last name, the e-mail that you will use for the course, a password for the course site, and your school student ID.You can change any of these settings, except the e-mail, later using the "My information" on your course website.

If your instructor has scheduled sections, labs or other sessions, please select one from the list offered on the enrollment page. If you want sign up to a full section, contact your instructor for more information.

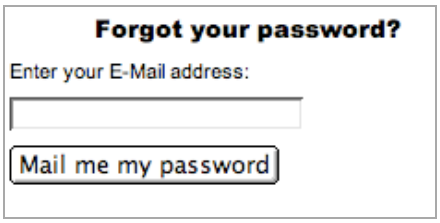
Sign in

Once you are enrolled, you can login to the course website by clicking on the "Sign in" link at the upper right corner.



Login page.

Enter the e-mail and password you have registered with the website. If you have forgotten the password, click "forgot" and submit your email in the pop-up window (see figure below). The ILT will send a new password to your e-mail account. You can change this password on the "My Information" page.



Forgot password window.

Reading Assignments

Access the reading assignments by clicking the link "Readings" in the top margin. This module lists all reading assignments that have been issued in the course. It contains a list of past as well as upcoming assignments. A link in the "Coming Up" menu also provides a shortcut to the next reading assignment.

Shortcut to upcoming reading assignment on side panel.

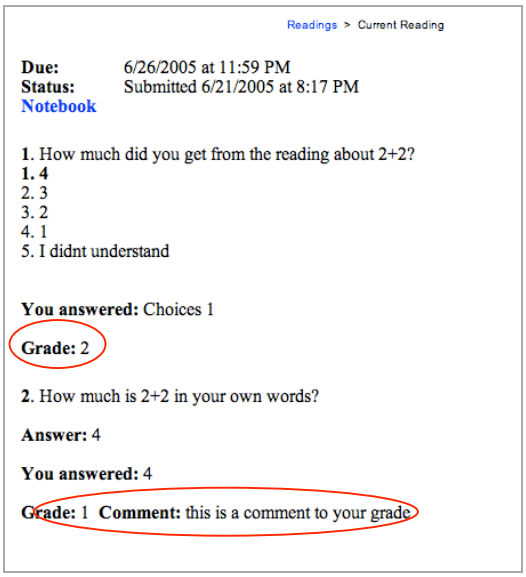
A list of past and due reading assignments.

NOTE: The instructor will inform you if the time displayed corresponds to the time in your local timezone. If the course website is run from a remote server in a different timezone, the time difference needs to be taken into account.

Any reading assignment can be viewed by clicking on the corresponding link. For upcoming assignments, a list of the questions and answer text boxes are displayed.
The answers can be revised until the deadline for submission has passed (see figure below left). After passing the due date, the reading assignment is moved to the list of past readings (see figure below right). If the assignment is graded, your grade will also appear on this list.

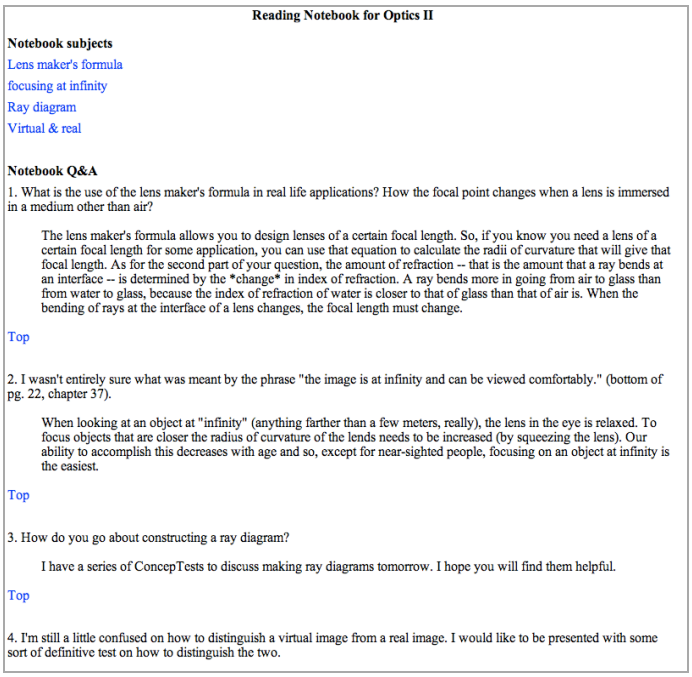
Reading Assignment home with submitted answers before deadline (left) and after deadline (right).

Clicking on a specific assignment leads to a list of the questions, your answers, if provided by your instructor, the correct answer and the grade.



Past ReadingAssignment.
Red circle indicates the grade and comments added by the instructor.

Some Reading Assignments may have FAQs or common mistakes summarized in the Reading Notebook. Click on the "Notebook" link on the upper left corner of the window to access these information (see figure below).



Reading Notebook for Optics II

Notebook subjects

Lens maker's formula
focusing at infinity
Ray diagram
Virtual & real

Notebook Q&A

1. What is the use of the lens maker's formula in real life applications? How the focal point changes when a lens is immersed in a medium other than air?

The lens maker's formula allows you to design lenses of a certain focal length. So, if you know you need a lens of a certain focal length for some application, you can use that equation to calculate the radii of curvature that will give that focal length. As for the second part of your question, the amount of refraction -- that is the amount that a ray bends at an interface -- is determined by the *change* in index of refraction. A ray bends more in going from air to glass than from water to glass, because the index of refraction of water is closer to that of glass than that of air is. When the bending of rays at the interface of a lens changes, the focal length must change.

Top

2. I wasn't entirely sure what was meant by the phrase "the image is at infinity and can be viewed comfortably." (bottom of pg. 22, chapter 37).

When looking at an object at "infinity" (anything farther than a few meters, really), the lens in the eye is relaxed. To focus objects that are closer the radius of curvature of the lends needs to be increased (by squeezing the lens). Our ability to accomplish this decreases with age and so, except for near-sighted people, focusing on an object at infinity is the easiest.

Top

3. How do you go about constructing a ray diagram?

I have a series of ConcepTests to discuss making ray diagrams tomorrow. I hope you will find them helpful.

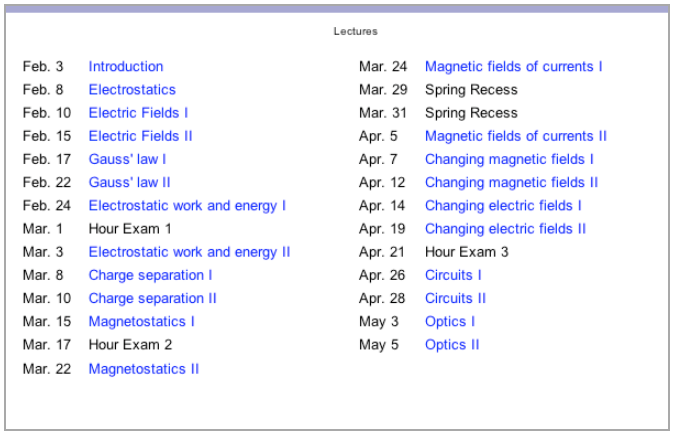
Top

4. I'm still a little confused on how to distinguish a virtual image from a real image. I would like to be presented with some sort of definitive test on how to distinguish the two.

Reading Assignment Notebook

Lectures

A list of all lectures can be viewed by clicking on the “Lectures” link in the upper part of the course website. There will be no link associated with a particular lecture before it has taken place. During lecture, the link may redirect you to the BQ Interactive Classroom, depending on what arrangements your instructor has made.



Lectures

Feb. 3	Introduction	Mar. 24	Magnetic fields of currents I
Feb. 8	Electrostatics	Mar. 29	Spring Recess
Feb. 10	Electric Fields I	Mar. 31	Spring Recess
Feb. 15	Electric Fields II	Apr. 5	Magnetic fields of currents II
Feb. 17	Gauss' law I	Apr. 7	Changing magnetic fields I
Feb. 22	Gauss' law II	Apr. 12	Changing magnetic fields II
Feb. 24	Electrostatic work and energy I	Apr. 14	Changing electric fields I
Mar. 1	Hour Exam 1	Apr. 19	Changing electric fields II
Mar. 3	Electrostatic work and energy II	Apr. 21	Hour Exam 3
Mar. 8	Charge separation I	Apr. 26	Circuits I
Mar. 10	Charge separation II	Apr. 28	Circuits II
Mar. 15	Magnetostatics I	May 3	Optics I
Mar. 17	Hour Exam 2	May 5	Optics II
Mar. 22	Magnetostatics II		

Lectures link.

After the end of the lecture, the link will redirect you to the lecture content page (see figure below). This page provides all information for a specific lecture. It might contain, announcements, lecture outline and notes and a video of the lecture. It might also contain a list of questions your instructor has asked in class as well as the corresponding answers.

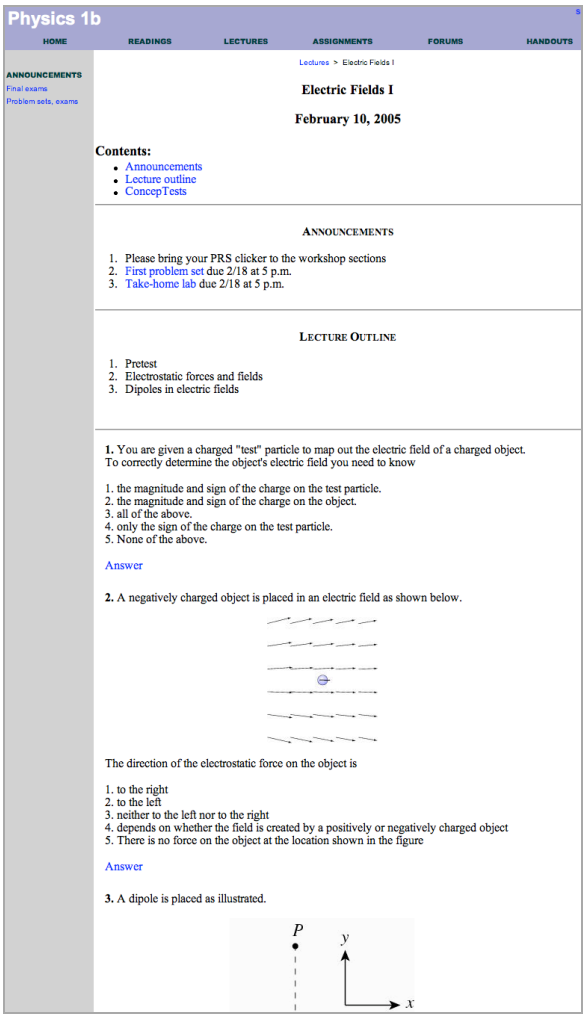


Figure: Lecture content page.

Assignments

The assignment and the reading pages work very similar. Assigment links can contain text files or URLs to other sites within or outside the course website. A link in the "Coming Up" menu on the side panel provides a shortcut to thenext assignment.
Once the due date of an assignment has passed, it will be moved from the "Assignment due" to the "Past assignments" list (see next figure).

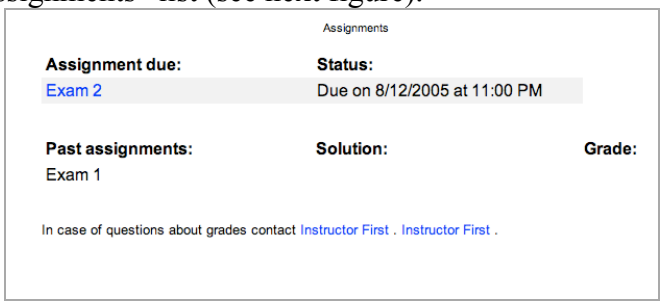
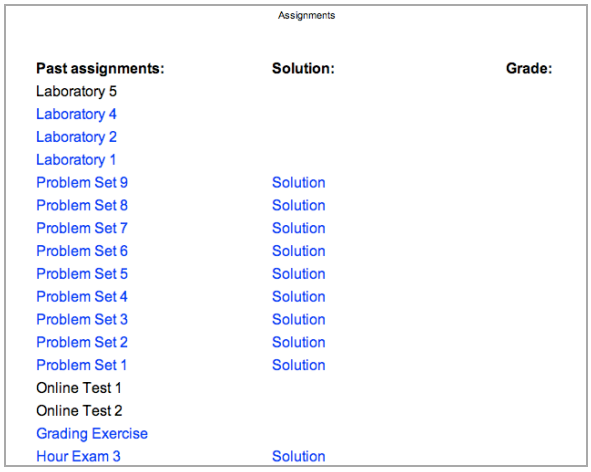


Figure: Assignments page

NOTE: The instructor will inform you if the time displayed corresponds to the time in your local timezone. If the course website is run from a remote server in a different timezone, the time difference needs to be taken into account.

The "Past assignment" list might contain links to assignment solutions and grades as provided by your instructor.

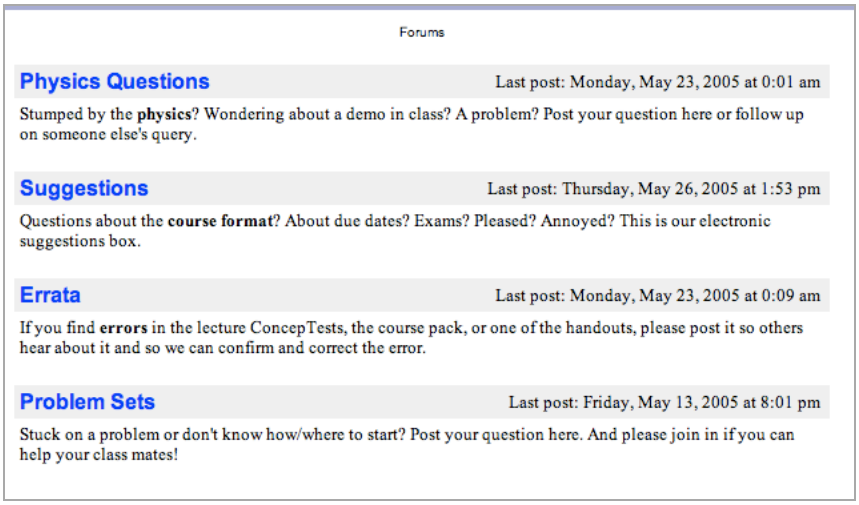

Assignments

Past assignments:	Solution:	Grade:
Laboratory 5		
Laboratory 4		
Laboratory 2		
Laboratory 1		
Problem Set 9	Solution	
Problem Set 8	Solution	
Problem Set 7	Solution	
Problem Set 6	Solution	
Problem Set 5	Solution	
Problem Set 4	Solution	
Problem Set 3	Solution	
Problem Set 2	Solution	
Problem Set 1	Solution	
Online Test 1		
Online Test 2		
Grading Exercise		
Hour Exam 3	Solution	

Figure: "Past assignment" list with solutions.

Forums

The "Forums" site can be used to start threats and discuss course issues with your student peers as well as the teaching staff.


Forums

Physics Questions — Last post: Monday, May 23, 2005 at 0:01 am

Stumped by the **physics**? Wondering about a demo in class? A problem? Post your question here or follow up on someone else's query.

Suggestions — Last post: Thursday, May 26, 2005 at 1:53 pm

Questions about the **course format**? About due dates? Exams? Pleased? Annoyed? This is our electronic suggestions box.

Errata — Last post: Monday, May 23, 2005 at 0:09 am

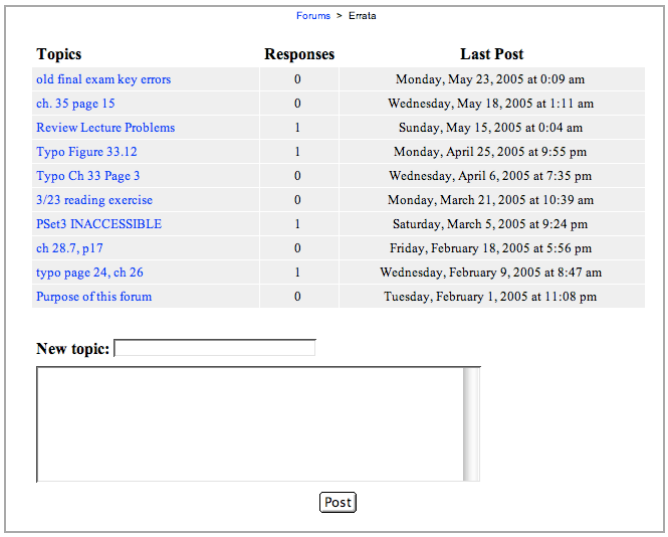
If you find **errors** in the lecture ConcepTests, the course pack, or one of the handouts, please post it so others hear about it and so we can confirm and correct the error.

Problem Sets — Last post: Friday, May 13, 2005 at 8:01 pm

Stuck on a problem or don't know how/where to start? Post your question here. And please join in if you can help your class mates!

Figure: Example of a forums page

To start a thread, read contributions or respond, please lease click on the forum of interest. You will be presented with a list of topics (see next figure).



Firgure: A forum.

To post a new topic, enter the title and your text at the bottom. To access a topic thread, click on the corresponding link. The thread consists of the initial posting and all responses (see next figure).

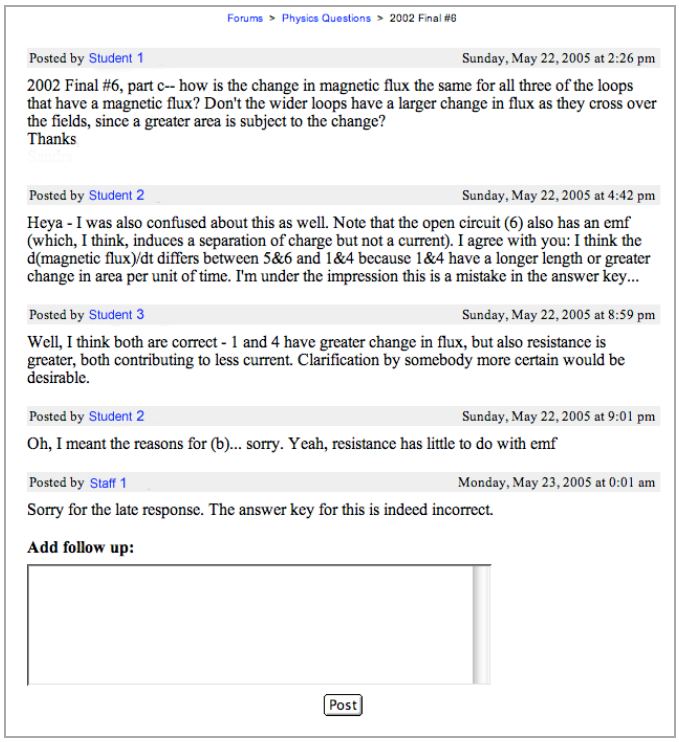


Figure: Inside a topic

To post a follow up, use the text box at the bottom of the page.

Handouts

The “handouts” page consists of a list of different types of lecture-related material. This material is in the public domain, i.e., you do not need to register to download handouts from this page.

Click on the corresponding link to download the handout.

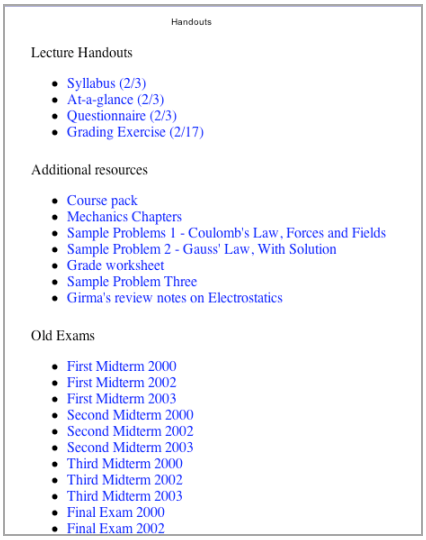
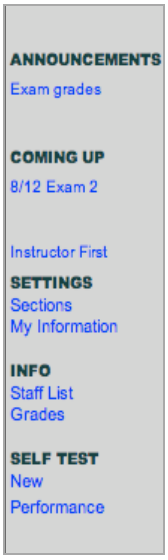


Figure: Handouts

Menus on the side panel

The menus on the side panel change dynamically during the course. There are five possible menus on the page. Some of them might not be active on your website.



Firgure: Menus

Announcements:

Announcement titles are posted here. Click on any title to read the full announcement.

Coming Up:

This menu lists links to upcoming readings and other assignments. Any link provides a shortcut to the corresponding assignment.

Settings:

Access to the sections page and the "My information" page (described below)

Info:

This menu lists staff members and their info. It also has a link to the grades page where all your grades are registered separately.

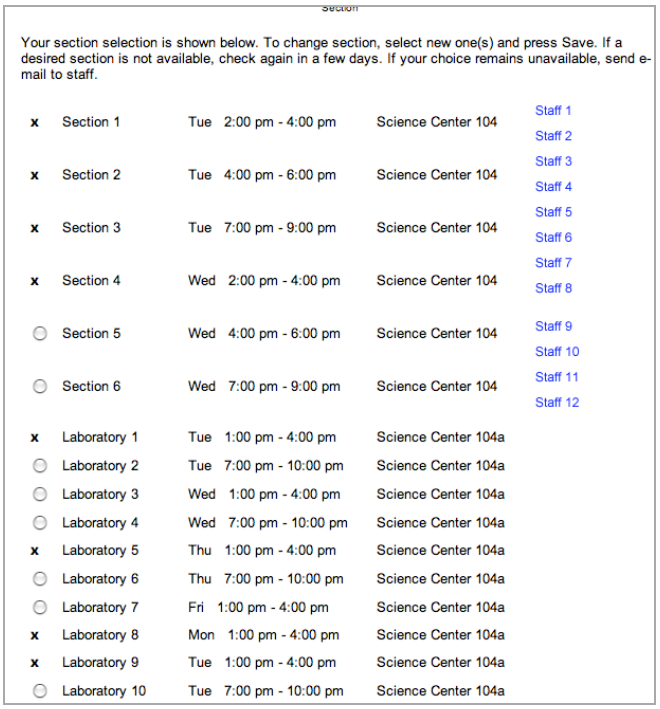
Self Test:

Test yourself on the content of the lectures by creating performing a self test. Check your performance on the next link.

Sections

The "Sections" page lists all type of sections available in the course, as well as their schedule, location and, if provided, the names of the section TAs.

You can change your section by selecting a new one and click "Save". Sections having an 'x' next to it are full. Their availability may be subject to change.



Section

Your section selection is shown below. To change section, select new one(s) and press Save. If a desired section is not available, check again in a few days. If your choice remains unavailable, send e-mail to staff.

x	Section 1	Tue 2:00 pm - 4:00 pm	Science Center 104	Staff 1, Staff 2
x	Section 2	Tue 4:00 pm - 6:00 pm	Science Center 104	Staff 3, Staff 4
x	Section 3	Tue 7:00 pm - 9:00 pm	Science Center 104	Staff 5, Staff 6
x	Section 4	Wed 2:00 pm - 4:00 pm	Science Center 104	Staff 7, Staff 8
○	Section 5	Wed 4:00 pm - 6:00 pm	Science Center 104	Staff 9, Staff 10
○	Section 6	Wed 7:00 pm - 9:00 pm	Science Center 104	Staff 11, Staff 12
x	Laboratory 1	Tue 1:00 pm - 4:00 pm	Science Center 104a	
○	Laboratory 2	Tue 7:00 pm - 10:00 pm	Science Center 104a	
○	Laboratory 3	Wed 1:00 pm - 4:00 pm	Science Center 104a	
○	Laboratory 4	Wed 7:00 pm - 10:00 pm	Science Center 104a	
x	Laboratory 5	Thu 1:00 pm - 4:00 pm	Science Center 104a	
○	Laboratory 6	Thu 7:00 pm - 10:00 pm	Science Center 104a	
○	Laboratory 7	Fri 1:00 pm - 4:00 pm	Science Center 104a	
x	Laboratory 8	Mon 1:00 pm - 4:00 pm	Science Center 104a	
x	Laboratory 9	Tue 1:00 pm - 4:00 pm	Science Center 104a	
○	Laboratory 10	Tue 7:00 pm - 10:00 pm	Science Center 104a	

Figure: Example of a section list.

My Information

My Information page allows you to edit your name, last name, ID and password. Click "Save" to update your changes.

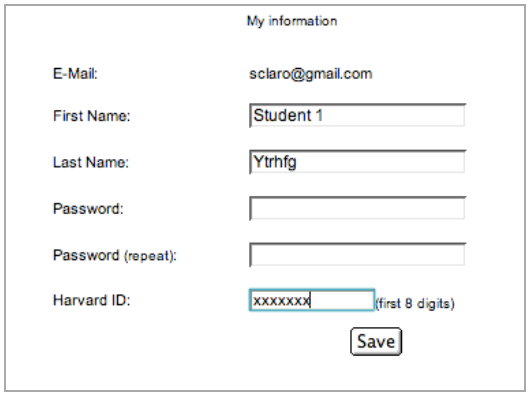


Figure: My information page.

Staff List

The Staff list offers you contact information for all members of the course teaching staff.

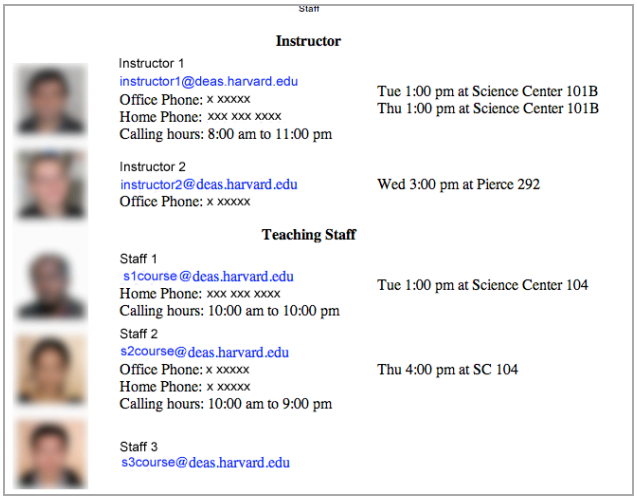


Figure: Staff List.

Grades

The "Grades page" lists all the grade information about the different assignments that have been included in the course. It's particular content depends on the course settings your instructor has activated.

Grades

Your final grade is **A**

RA	CT	PT	L	PS	OT	HE	FE
0/6	0/3	0/2	0/10	0/40	0/5	0/35	0/60
0/8	0/9	0/2	0/10	0/35	0/15	0/35	
0/8	0/8	0/2	0/10	0/30	0/15	0/35	
0/8	0/11	0/2	0/10	0/35			
0/8	0/8	0/2	0/10	0/35			
0/8	0/7	0/2		0/35			
0/8	0/5	0/2		0/35			
0/8	0/6	0/2		0/35			
0/8	0/8	0/2		0/35			
0/8	0/9	0/2					
0/8	0/5	0/2					
0/8	0/8						
0/8	0/4						
0/8							
0/8	0/9						
0/8	0/7						
0/8	0/9						
0/8	0/4						
0/8	0/9						
0/8	0/10						
0/8	0/9						
	0/13						
0/166	**0/161**	**0/22**	**0/50**	**0/315**	**0/35**	**0/105**	**0/60**
0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

RA: Reading assignments; CT: ConcepTest participation; PT: Pretest; L: Laboratory; PS: Problem Set; OT: Online Test; HE: Hour Exam; FE: Final Exam;

Example of grades page

To analyze your performance compared to your classmates, click on a particular assignment. The pop-up window shows the grade distribution and your relative position compared to the rest of the class (with the bar representing the range of your grade being black).

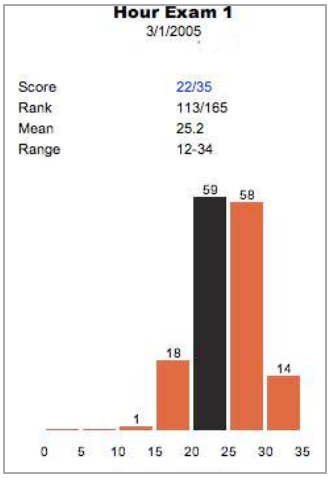


Figure: Assignment statistics.

Self Test

This feature works only for courses where ConceptTests have been included into the lecture.

New

To start a new self-test, click on the “New” link in the “Self Test” menu.

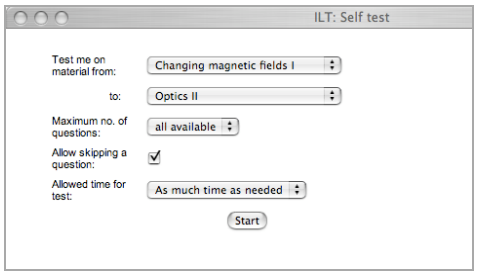


Figure: Self test settings

Initial settings: set the topic range of the test by choosing the starting and final lecture that you want to test. Choose the maximum amount of question. Check if you want to be able to skip a question (the system will repeat the skipped questions after you finish the last one in the test). Choose the amount of time you want to work on the test.

Click the "Start" button. A new window will show you the settings. Click "Start" again to confirm and to start the test.

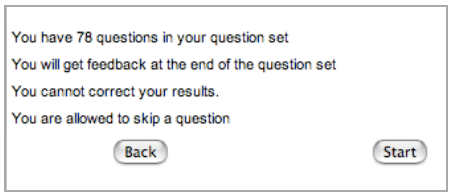


Figure: Self-test settings information.

The questions are the ConceptTests covered in class. You can end the test at any time by clicking the "End test" button. Only the score up to this question is recorded.

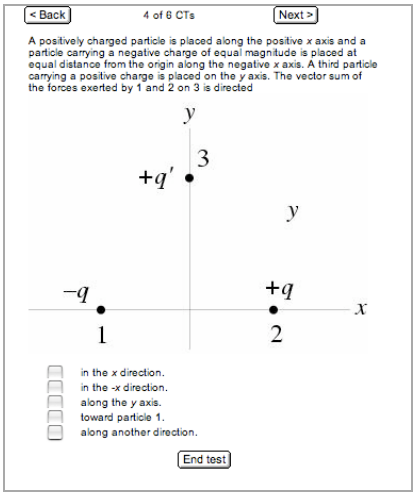


Figure: Self-test question

At the end of the test, you will have access to your score. You can review the questions with the "Review" button.

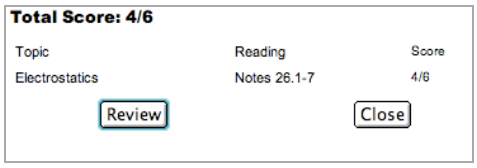


Figure: Self-test, final score.

When reviewing, the correct answer is highlighted by a grey bar and discussed at the bottom of the window

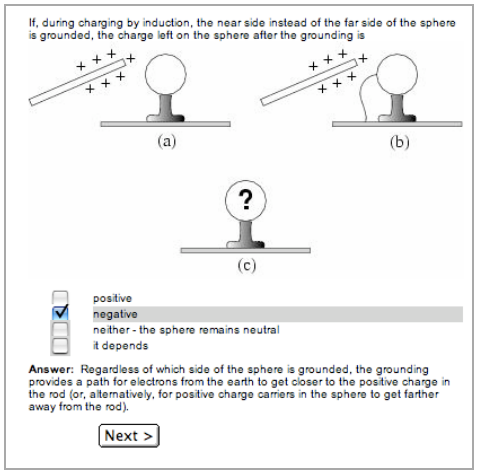


Figure: Review of self-test.

Performance

All your test scores are recorded. You can access this information using the "Performance" link in the "Self Test" menu (see figure below.

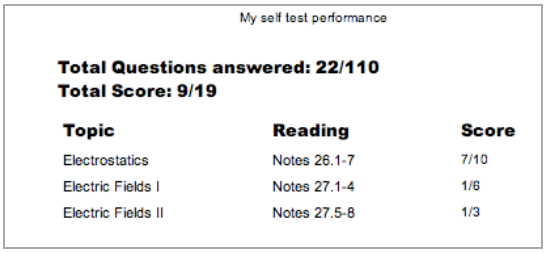


Figure: Self-test performance information